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ANATOMY, SURGERY, AND OPHTHALMOLOGY.

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ART. I.—*On Colotomy (Amussat's Operation), for the Relief of Cancer of the Rectum.* By GEORGE C. BLACKMAN, M. D., Prof.. etc.

(Continued from January Number.)

MR. RICHARD QUAIN, in his valuable work *On the Diseases of the Rectum*, 2d ed., p. 289, under the head of Cancer of the Rectum, thus observes: "Lastly, should complete obstruction arise, as in Cases 77, 81, the disease being in the rectum and confined to that bowel, an artificial anus ought to be formed. In the case before us, the left colon in the lumbar region is, beyond all question, the part to be preferred for that purpose, and because an aperture may there be made into the bowel without opening the peritoneum. It is, perhaps, needless to say that the operation is not intended to cure the disease, but for a purpose which is, however, second in importance only to the cure, namely, to relieve immediate suffering and to prolong life." In Case 77 the obstruction to the alvine evacuation led to a rupture of the cæcum. Case 81 is that of the celebrated Broussais, who first consulted Amussat in April, 1838, for cancer of the rectum. Death put an end to the sufferings of this celebrated physician in November of the same year. For three weeks before his death there had been no evacuation from his bowels. Four inches of the rectum were found diseased in its entire circumference. The abdominal viscera, pectoral organs and brain were perfectly sound, confirming the opinion he so often expressed: *Tout*

est dans le rectum (the rectum is the only part diseased). It was in view of his sufferings that Amussat was led to propose, in similar cases, colotomy; and from what we now know of the results of this operation there can be but little doubt that the life of Broussais might have been made comfortable, and prolonged perhaps for years.

Dr. Walter Hayle Walshe, of the University College Hospital, London, in his elaborate treatise *On the Nature and Treatment of Cancer* (Lond. 1846), in discussing the propriety of excising the rectum in cases of cancer of that organ, at page 306 thus remarks: "But the indication for removal of a portion of the rectum may become so strong that the operation may be had recourse to, though no hope be entertained for a moment of its curing the disease. When obstruction of the bowel is complete, and a fatal issue from rupture of the intestines, in the manner described, becomes imminent, death may be warded off for a time by extirpation of as much of the morbid mass as is practicable. The free discharge of the function of the rectum is necessary for daily existence; its restoration may consequently be attempted by extreme measures, and, in point of fact, extirpation effected for the relief of symptoms, provided the patient be willing and desirous to submit to an operation from which such amount of benefit alone is anticipated. The comparative rarity of visceral contamination in rectal cancer, affords, as far as it goes, justification of the operation, undertaken with such views. But the importance and necessity of this operation, under the circumstances supposed, have been very seriously lessened by the comparatively recent revival of another surgical procedure for relieving such sufferers and warding off imminent death. I refer to the establishment of an artificial anus. There are now (1846), at least eighteen cases on record in which an artificial anus has been established in the adult for the relief of symptoms promising momentarily to close in death." Mr. T. B. Curling, in his "*Observations on the Diseases of the Rectum*," 3d ed., Lond., 1863, at page 168 remarks: "The operation of colotomy may be required, not only on account of the difficulty experienced (in cancer) in obtaining relief from the bowels, but also in consequence of the extreme misery produced by the disease. In two cases of obstruction (Cases 31 and 33) in which I opened the colon in the loin, the patient's sufferings were aggravated by the formation of an opening between the bowel above the stricture, and the bladder..... In treating of cancer I have remarked that under certain circumstances, although no obstruction exists, it may be our duty to propose colotomy to save the patient much of the misery consequent on the disease during the remainder of life, and I have adduced a case (Case 27) in which

the operation was performed with this view. The danger attending the operation of colotomy is much less than is commonly supposed, and in the unsuccessful cases which have fallen under my notice, the fatal result was chiefly attributable to the effects of the disease of the bowel on the constitution of the patient." Mr. Curling, p. 168, urges the importance of an early operation, and declares that when the ordinary means of giving relief have failed, it is clearly the duty of the surgeon to suggest the expediency of the operation, before inflammation is set up, or the intestines have become damaged by over distension, or before the powers of life are too far exhausted to admit of the patient's recovery afterward. "In a case which was operated on at the London Hospital on the fifteenth day of obstruction, and ended fatally, I found, on examination of the body, the peritoneal coat of the transverse colon ruptured to the extent of about six inches."

Many of our readers are doubtless familiar with this interesting paper published in the London *Lancet*, Jan. 7, 1865, in which he strongly advocates the operation in the treatment of painful cancer of the rectum without obstruction, the object being to relieve the distress arising from frequent scalding discharges of blood and mucus mixed with liquid feces, and from incontinency. Another strong argument in favor of the operation, in his opinion, is to guard against the unpleasant consequences of the communication in males, between the rectum or urethra and bladder, or the rectum and vagina in females. The profession has condemned the excision of the rectum as practiced by Lisfranc and Dieffenbach, as the diseased part could seldom be removed, and the patients, if they survived the operation, were left in nearly as miserable a state as before. Mr. Curling adds: "The circumstance that lumbar colotomy is in no degree curative, but can succeed only in diminishing suffering, retarding the progress of the disease and prolonging life, has no doubt weighed against the operation both with the surgeon and the patient. So long as it is viewed as one of great danger, and of great difficulty, and so long as an anus in the loin is regarded as a disgusting infirmity, the objection will prevail. I have endeavored, in a published work, to show the erroneous nature of these views. I have argued that the operation is not nearly so serious nor so difficult of performance as is commonly supposed, and that a well formed artificial anus is attended with little inconvenience. If this be granted, the surgeon is scarcely justified in withholding from his patient even the temporary relief from the great miseries I have described, which may be afforded by this operation."

Dr. Wm. Brinton, in his "*Croonian Lectures on Intestinal Obstruc-*

tion," delivered at the Royal College of Physicians, London, decides the general question "Is Gastrotomy justifiable in Intestinal Obstruction," in the negative; "a negative with which any sound practitioner (however limited his views or his experience) might well anticipate all that the most extended research, or careful clinical study, could suggest. In a disease which, however frequently fatal, often allows the patient to recover, even at the last gasp, we naturally feel bound to defer an operation which is only less dangerous than the disease itself, to a period which in the majority of instances, it is no longer a mere obstruction which is present. In scarcely any instance of obstruction is death, strictly speaking, certain; and in a few instances in which the operation is thus performed, can we regard this slender thread of hope as materially strengthened. But, assuming the accuracy of the information I have offered, and the principle I have advanced, it is quite otherwise with the practical question which is often submitted to us by a particular case of obstruction. If, for example, we are right in supposing that the varieties of this state (distinguishable as such at an early period of the case) have different degrees of fatality; that some permit so frequent a recovery as scarcely to justify this dangerous operation at all, while others are so desperate as to afford only this chance of life; we may not only reject, and practice, the operation in two such varieties respectively, but may find, in the latter proposition, a justification for our practicing it at a period of the malady which will render it far less dangerous, and therefore, far more justifiable.

"Few illustrations of the practical accuracy of this way of regarding gastrotomy, recommend themselves more directly to our notice, than the operation often named after Amussat, in which the right or left lumbar colon is opened to relieve the distension produced by an obstruction nearer the anus. It is quite true that the anatomy of the operation—especially the unwounded state of peritoneum it generally permits—constitutes one chief cause for its more successful results. But it can hardly be doubted that its success is partially due to other causes. Indeed, considering the circumstances of many of the obstructions for which it is performed—the serious lesions (cancer or stricture) by which they are caused, and the scarcely less serious incidents (diarrhœa and hemorrhage) by which they are often long preceded—we are perhaps justified in regarding the absence of interference with the peritoneum as partially counterbalanced by some of the other circumstances of the operation. Yet, practically, there can be no doubt that this unpromising measure, mostly undertaken merely to palliate the suffering, or to defer the approach of inevitable death, has been every

way more successful than any other operation practiced for the relief of obstruction. And theoretically, we may gather from the statements of the preceding Lecture, that this striking result is greatly favored by the comparative security of the diagnosis of these obstructions; and by the circumstance, that the physiological relations of the large intestine render the phenomena of its obstruction altogether of slower and later occurrence than are the same phenomena in obstruction of the small intestine."—*London Lancet*, May 28, 1859.

In Mr. Samuel Solly's *Surgical Experiences*, London, 1865, I find at page 481, the republication of his paper read before the Royal Medical and Chirurgical Society, April 12, 1864, in which he reports four cases of intestinal obstruction, and in three of which the colon was opened in the left lumbar region. He thus expresses his opinion, and we need not add that his long experience at St. Thomas' Hospital, entitles his opinions to the greatest respect: "Men who are ignorant of the nature of Amussat's operation, describes it as dangerous and difficult, whereas, in properly selected cases, it is neither dangerous nor difficult. In properly selected cases, I mean cases in which there is evidence of obstruction at the upper part of the rectum, or lower part of the sigmoid flexure of the colon, sufficient to distress the patient, and threaten a fatal termination from feculent and tympanitic distension of the intestinal canal, accompanied with physical signs of distension of the descending colon in the lumbar region. When these signs are present, the fact of the occasional passage of feculent matter or scybala, as large as a walnut, does not forbid it. I say that the operation ought to be performed in order to alleviate suffering and prolong life."

We have already quoted the opinion of Mr. Henry Smith, of London, in his article on the Rectum, in Holmes' *System of Surgery*. In his Lumleian Lectures *On the Surgery of the Rectum*, recently issued (1865), we find him speaking more decidedly in favor of this operation: p. 65.

"It has recently been recommended that the operation of opening the intestine above the seat of the disease should be adopted, not merely for the relief of the fatal symptoms which ensue from complete obstruction of the bowels by the cancerous deposit, but as a means of combating those distressing, but not necessarily fatal, sequelæ of the disease, such as extreme difficulty in evacuating the bowels, harassing and irritating diarrhœa, and violent pain—symptoms indeed, which sooner or later lead to death, but which do not of necessity demand an operation. Mr. Erichsen and Mr. Curling have strongly urged this course of action, in such cases, as a means of temporary relief, and I must warmly support these views; and I shall not hesitate in the

I must warmly support these views; and I shall not hesitate in the first suitable case which comes under my care, attempting to give the relief, which most certainly may be better afforded by Amussat's operation than by any other means."

We might quote many other distinguished authorities in support of colotomy for the relief of the symptoms produced by cancer of the rectum, but our limits forbid, and we will conclude our present report with the judicious remarks of Dr. Williams, of Dublin, written some quarter of a century ago, in his review of *Amussat's Memoirs on Artificial Anus.* "It has been objected to the formation of an artificial anus in the abdomen, that death is preferable to life burdened with such an infirmity. If parents, on behalf of their child, or an adult on his own account, think so, it is for them to refuse their consent to the operation; but it is the duty of every surgeon to propose every resource that offers a reasonable chance of preserving life."—*Brit. and For. Med. Rev.*, Oct., 1848.

Two weeks since I performed my second operation, on a very intelligent gentleman, at 45, who for ten months had suffered fearfully from cancerous obstruction of the rectum. He informed us that for two months his bowels had been almost completely obstructed, and his evacuations had been for a long time scanty and attended with the greatest torture. On informing him that I knew of no other remedy than Amussat's operation, and that this was intended merely to prolong life and make it more tolerable, he decided at once to submit to it, and it was performed on the 17th of January, at St. John's Hospital, in the presence of numerous physicians and the class of the Medical College of Ohio. The rectum, as far as the finger could reach, was filled with a scirrhous, fungoid, ulcerated mass, and during the month preceding the operation he had had several attacks of hemorrhage. His health was rapidly failing at the time of his admission to the hospital. He was a man of large frame, and even though quite feeble at the time of the operation, he still retained a large amount of adipose tissue, both subcutaneous, and within the abdominal muscles, which rendered the operation one of much greater difficulty than in our first patient, Luke. As is well known, Amussat's operation consists of a transverse, instead of the perpendicular incision of Callisen, which is to be four or five fingers' breadth in length, and to be midway between the last false rib and the crest of the ilium; but in corpulent subjects he advised a crucial incision both of the superficial and deeper seated parts. Amussat, in his second and fourth operations, discovered that at times the surgeon may encounter great difficulty and embarrassment. If the descending

colon is contracted, as it not unfrequently is, even in cases of obstruction, it is sometimes most difficult to identify the intestine, our only guide being the kidney and the adipose cellular tissue beneath it. In a clinical lecture published by Mr. Erichsen in the *London Lancet*, Jan. 17, 1857, the obstacles in the way of the surgeon are well described: "After the integumentary layers are divided, the anterior edge of the latissimus dorsi and the posterior part of the abdominal muscles are successively divided. The dissection is carried down through these until the transversalis fasciæ is reached, the anterior and middle lamellæ of this are opened, and the edge of the quadratus lumborum exposed. The real difficulties of the operation now commence; the surgeon having to dissect carefully through layers of cellulo-adipose tissue which lie in front of the abdominal wall, and which cover in the colon and the contiguous reflexions of the peritoneum. If the gut is distended, this tissue will be pushed well aside, and the intestine may easily be reached; but if it be contracted and empty, it will be found to recede somewhat from the surface, to lie at a great depth, and to be almost overlapped by the reflexions of the peritoneum, to avoid wounding which requires the greatest care. It is also covered in by a quantity of loose cellulo-adipose tissue, which, as it rises and falls with the respiratory movements, presents a considerable resemblance to the peristaltic motions of the small intestine, for which, it at first, may be mistaken. After having worked his way through this tissue, the colon will be exposed toward the outer angle of the wound. The gut can at once be recognized from any other structure by its grayish-green hue, the longitudinal striæ on its posterior surface, and its thicker feel. When exposed, a needle, carrying a strong whipcord, should be passed through it in a vertical direction, and the gut being thus drawn to the surface, may be properly opened and stitched to the edges of the wound."

In the only case reported by Mr. Erichsen he met with no difficulty until the anterior layer of the fascia transversalis was exposed. On opening this, layers of cellulo-adipose tissue presented themselves, and on dividing them, a large quantity of loose fat was exposed, which, rising and falling with the respiratory movements, added much to the difficulty of identifying the intestine, which was completely contracted and empty. This mass of fat was partly dissected, partly torn through, when the gut was recognized by its greenish-gray color and firmer feel, which offered a striking contrast with the yellowish-buff color of the contiguous tissues. We encountered precisely the same condition of things in our last operation, a condition which must necessarily prolong

it, and which, in Mr. Erichsen's case, seems to have added to the exhaustion which led to the fatal result on the following day. Anticipating in our second operation the difficulties enumerated by Mr. Erichsen, we made our external incision some 6½ or 7 inches in extent, instead of 4 inches, as practiced by Mr. E. The progress in our case thus far has been satisfactory, and we have reason to expect a fortunate result. Mr. Curling, in his *Observations on Diseases of the Rectum*, 3d ed., Lond., 1863. p. 172, refers to the difficulty of performing colotomy in very fat persons, as the lumbar colon is at a great distance from the surface, and can be reached only by a large and deep incision. He mentions one case within his own knowledge in which the operator failed to find the colon, and was obliged to abandon the operation. Mr. Curling also refers to a method adopted by Mr. N. Ward, to overcome the contracted and empty condition of the colon, viz.: passing a long tube into the bowel, and throwing up a large quantity of fluid in order to make sure of a distended bowel at the seat of operation. We have noticed in the reports of many cases that the surgeon has been anxious to produce at once a copious feculent discharge through the artificial opening, and have administered cathartics, or injections for this purpose. In both of our cases we preferred to await the union of the artificial opening in the colon to the integuments, and still believe this the more prudent course, as all danger of extravasation within the body is thus avoided. Should the descending colon be greatly distended when it is opened, of course nothing can prevent the discharge of fecal matter, in which case strict attention to the position of the patient may obviate all risk of extravasation. It was the custom of Amussat, after having secured the bowel by means of a thread passed through it, to puncture with a trochar, and many surgeons employ the same, but we can not understand what objections there can be to the point of the knife. In both of our cases we felt satisfied with the use of the latter instrument.

We have borrowed from Gunther's *Lehre von den Operationen am Bauche*, the illustrations employed to illustrate our article. They give a very fair idea of the parts as they appear during the operation on thin subjects, but a very feeble one of the structures divided in such cases as described by Mr. Erichsen, or as I found in my second patient. In describing the proceeding, we give that contained in every text book on surgery. The patient is to be placed upon the face, with a pillow beneath the lower part of the abdomen, in order to render the left flank prominent. The spot where the intestine should be sought for and opened is about two fingers' breadth above the crest of

the ilium and midway between the anterior and posterior spinous process.

Fig. 1.

An incision is to be made transversely, or slightly oblique, commencing at the outer margin of the erector spinæ and carried outward for about four or five inches. The layers of muscles are to be cut through down to the transversalis fascia, and the latter is to be divided upon a director. The parts exposed as in the above figure, are the

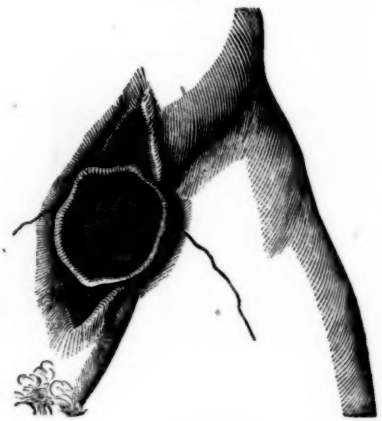
Fig. 2.

latissimus dorsi, the external and internal oblique, and the transveralis. If no fat is present the fascia glides over the bowel and may easily lead the operator to suppose that it is the peritoneum, but on opening

it the posterior wall of the colon is found uncovered by the serous membrane. The colon may now be drawn upward, when two strong silk ligatures are to be passed through it as represented in the cut.

This enables the surgeon to prevent the effusion of fecal matter among the tissues divided, and renders the next step of the operation an easy matter. With the point of the scalpel the bowel is now to be incised obliquely upward and outward, to the extent of one and a half inches. The following figure represents this opening as seen in Littre's operation at the groin.

Fig. 3.



Mr. Curling employs four metallic sutures to unite the cut edges of the bowel to the margin of the wound in the skin. In our own cases we have used the ordinary silk suture, and inserted six instead of four.

In our second patient, on account of the great depth of the wound, I divided the deeper layers of muscle crucially, in order to gain more room. It has been objected to this that it endangers the lumbar arteries, but we found no difficulty from this source. The chief difficulty encountered in our second operation, arose from the abundance of fatty tissue in front of the quadratus lumborum muscle, and in the region of the kidneys. This at first protruded, after the division of the fascia, so as closely to resemble the colon, and misled both Prof. Gobrecht and myself. I passed the ligatures through it so as to retain it securely, and discovered, only after incising the parts, that I was dealing only with adipose tissue. In this manner our mistake was soon rectified and

the operation completed in the manner above described. Our statistical table, which will be given in the next number of the JOURNAL,

Fig. 4.

embraces all of the cases of Amussat's operation we have been able to find reported, and as will be seen it contains a number in which the obstruction was not caused by malignant disease.

NOTE.—Luke King, our first patient, died on the 26th inst. (Jan.), having survived the operation 3 months and 19 days. On examination of the body, the pelvis was filled with the cancerous mass, which originated in the rectum. The neck of the bladder was so invaded by the morbid growth that his urine could no longer be evacuated. The lumbar glands were diseased, and the liver was one enormous mass of cancerous disease. The pressure of this immense organ had caused a narrowing of the ascending colon. The descending colon was firmly adherent to the opening, in the lumbar region, and was in a sound condition above this point. The artificial anus had worked admirably, up to the time of death, and the patient was strong in his expressions for the relief it had afforded him. Without the operation he could not have survived another week.

(To be continued in the next number.)

ART. II.—*Papers on the Surgical Diseases and Surgery of Children. By* M. P. GUERSANT, *Chirurgeon honoraire de l'Hospital des Enfants Malades; Membre honoraire de la Societie de Chirurgie. Translated from the French by* J. C. REEVE, M. D., *Dayton, Ohio.*

No. 2.—PRACTICAL REFLECTIONS UPON VASCULAR TUMORS AND SPOTS, AND UPON NÆVI.

Erectile tumors are characterized by an abnormal development of the capil lary blood-vessels, and present themselves as spots or tumors. These spots and tumors resemble each other by the predominance of the vascular element; their anatomical structure is the same, but they differ in form. Some of them are developed during the intra-uterine period of existence, others make their appearance sooner or later after birth, occasioned by a blow, by long-continued pressure, or come without any recognizable cause.

The *spots* have their seat in the skin itself, being found upon all parts of the body, often upon the face. They are not elevated above the surface, but are flat and without projection; generally they are congenital and we often observe several of them upon brothers and sisters, and upon children whose ancestors have been marked by this affection.

They vary in form, in number, in color, but their tint is always marked, varying from rose-color to deep red. They are venous in character, sometimes diffused, more often circumscribed. They disappear under pressure of the finger, to return again as soon as it is removed. Some of them—of the least deeply colored and most diffuse ones—disappear after a time and without definite cause; others, becoming the center of a slight furnuclous inflammation, suppurate, become modified, and leave cicatrices which end sometimes by becoming scarcely perceptible. Finally, the greater number persist; they may remain stationary, but often also they increase in size and tend to invade more or less of the surface of the integument.

The *erectile tumors* are situated beneath the skin; they differ from the spots by occupying the subjacent cellular tissues; they may extend to the deeper layers and muscles, to the fibrous tissues, and indeed to all the soft parts. A little patient, of whose head we had a cast taken which is deposited in the Dupuytren Museum, had enormous erectile tumors not only on the face, but even in the lungs and in the liver. All the tissues, then, even the bones, may be affected.

These tumors may be likened in their structure to the cavernous tissue found in all the erectile organs. They are composed of veins and arteries, and of intermediary cellules into which these vessels open; it is a veritable spongy tissue, fibrous and areolar. Dilated capillary vessels, arteries and veins, communicating together and with the cellular spaces filled with blood, such is the anatomical composition of these tumors. Upon this point we have arrived at the same result as Petit and Dupuytren; the injections which we have made have demonstrated that in general the venous radicles predominate over the arterial, as well in the spots as in the tumors, strictly speaking. The

spots however, are more especially composed of veins. In the tumors there may be predominance of arteries, or an equal development of the two systems.

These tumors present very great irregularities. They may be sessile or pedunculated; we have observed some which resembled a bunch of mushrooms or fungi. Some of them are no larger than a grain of millet-seed, others are the size of a nut, and still larger. Very rarely there is but one on the same subject; sometimes eight, ten, or more may be counted. Vidal saw nine upon one shoulder. The little girl whose case was just mentioned had the face covered with them.

The development and growth of these tumors also present great differences. They may scarcely grow at all for several years, even remain stationary, while again they may spread over an entire region in a brief period of time.

They are generally in the beginning reddish spots, vermillion or claret colored, circular in shape, sometimes very limited in extent. There is not at first any appreciable elevation of the skin, but the cellular tissue gradually developes and ends by forming a projection. This development may be observed during the earlier months of life, or not take place until puberty. Desault and Defrance have observed in young girls a flow of blood from the surface of these growths, recurring periodically, and becoming a sort of supplementary menstruation. Other surgeons have made similar observations.

It is ordinarily beneath this cutaneous spot that the bulk of the tumor forms. This tumor, at first of small size, circumscribed and movable, seems to fix itself at its base and circumference by means of prolongations which are not always sensible exteriorly, although sometimes creeping out quite a distance. The surface becomes irregular and unequal, like the comb of a cock. The distended skin is thinned and takes on a violet or bluish tinge.

The tumor may be subcutaneous and the skin remain uncolored; some of them commence in the deep parts and reaching the skin, raise it up. These latter are soft, mellow to the touch, giving under pressure, sometimes almost entirely reducible. They give a fluctuation more obscure than that of an abscess, because the blood in passing from one point to another, traverses the cellules and its movement is retarded.

The venous tumors present neither expansion, nor thrill, nor pulsation; while, although it is not ordinarily the case, there may be perceived in the arterial tumors a peculiar *bruit*, a sort of murmur less pronounced than that of arterio-venous aneurism, but sensible. The hand also perceives pulsation or expansile movements, but only when the tumor is voluminous or in connection with an important artery. We believe we have remarked that tumors of the parotid region were generally arterial.

Repose diminishes the color and the volume of erectile tumors; they are increased, on the contrary, by crying, by muscular efforts, by exercise of all kinds, and in the adult even under the influence of emotion.

A fissure produced by distension, a blow, a wound, any kind of solution of continuity may give rise to a hemorrhage or an inflammation which may result in a radical cure. In very young children these tumors inflame, often

without our being able to say why; it may be from the rubbing of the clothing. One of my little patients in whom a similar accident occurred, entirely recovered after an application of the nitrate of silver made to arrest the hemorrhage which followed.

It is possible to confound these tumors, especially when deep seated, with growths of an entirely different nature; but those occurring in children are generally easy of recognition. However, we presented to the Surgical Society in 1845, a specimen which established a most extraordinary error of diagnosis. A child presented in the internal angle of the right orbit a small tumor which had all the characters of a subcutaneous erectile growth. Several members of the society advised the passage of filaform setons through it, a measure in which we fully concurred. Shortly after this operation the child manifested cerebral symptoms and soon succumbed. The autopsy showed that the tumor was an encephalocele. The sack, of the size of a pea, after having traversed the fronto-ethmoidal suture, made a projection at the internal angle of the orbit; it was formed of a small portion of cerebral substance enveloped in its membranes.

Professor Moran has reported an analagous case. A practitioner who has written upon this disease mistook a parotidean erectile tumor for a mass of enlarged ganglions. It is plain then that very serious difficulties may be experienced in the diagnosis of this affection.

The prognosis of these tumors varies according to the predominance of the venous or arterial element in their structure, then, according to the tissues they invade, and the region in which they have made their appearance. Thus the venous are less grave than the arterial, and the erectile tumors of the orbit, or of bone, are evidently more dangerous than those seated in other parts.

Many surgeons, Dupuytren at their head, scarcely believe recovery possible unless by surgical aid. In this respect they go too far. Moreau advised against an operation in some children where Dupuytren had considered the intervention of art as indispensable, and nature effected in these cases a radical cure.

I have myself observed analogous cases; the most interesting I can cite is that of a young child who had several of these tumors upon the head and one on the face. This last alone was cauterized, whereupon those on the head inflamed, why no one could tell, and a spontaneous cure took place.

Treatment.—When the spots or the tumors are not increasing rapidly in size, a spontaneous cure being possible, as we have just seen, we should limit ourselves to a continued surveillance, holding ourselves in readiness to act should development begin.

The operative's measures may be ranged in three grand classes: 1. Those to prevent the blood reaching the diseased parts. 2. Those to obliterate the dilated vessels by inflammation. 3. Those to destroy the morbid tissue or to remove it. Finally, under a fourth head, may be mentioned those purely palliative measures having for their object the modification of the color of the parts.

The first class comprises four principal methods: topical astringents or refrigerants, compression, ligature of the arteries, circular incision of the base of the tumor.

The second comprehends five procedures: puncture with breaking up, vaccination, the seton, the needles (Lallemand's plan), and incision.

The third class has six subdivisions: the ligature, excision united with the ligature and with suture, caustics, extirpation.

Finally, the fourth class, purely palliative and for which we are indebted to M. Paul of London, consists in tattooing the erectile spots.

All these methods are described in detail in your text books; I shall speak only of the means which have succeeded best in my own hands at the children's hospital.

If the majority of the procedures we have just enumerated can claim their successes, they have also to acknowledge very sad failures. Thus, we once cured by the employment of about fifty setons an enormous tumor in the parotid region of a little girl whom we saw with Vidal and Velpeau, and for which ligature of the carotid had been proposed. But, on the other hand, one of our most distinguished professors lost the little son of one of the richest financiers of the world, after passing one or two threads into a small erectile tumor. Erysipelas carried off the little patient.

We can also report a certain number of successful cases obtained by means of the ligature, as used by M. Rigal; and yet we lost by this method a little girl who had a tumor on the anterior region of the neck.

The most brilliant surgical procedures have their failures; therefore we endeavor to popularize those which determine the fewest accidents, even if much slower in producing a cure. Faithful to this principle, we have always used in the treatment of erectile tumors and spots the actual cautery and caustics—powerful remedies which we make use of in surgical diseases whenever they are applicable.

We have also obtained excellent results from vaccination, especially in the case of spots, and many other practitioners can furnish numerous observations of the efficacy of this mode of treatment.

Thus then, proceeding in order, we place vaccination at the head of the list for spots, especially when they are of small extent and not very thick, but it is also applicable to those which project somewhat, and to tumors of small size. Care should be taken to insert the matter around the morbid tissue, for if punctured, the flow of blood may wash it away.

Next to this, we have had recourse, with success, to blisters, the surface being covered with the perchloride of iron. Guillot and Thierry have extolled, and justly, this mode of treatment. Also a solution of the perchloride of iron may be injected into the tumors by means of a *Pravaz* syringe.

But when the tumors reach any considerable size, we employ Vienna paste, with the action of which we have always had reason to be satisfied. A layer of it is spread in size and thickness proportionate to the dimensions of the morbid tissue. It is not necessary to cover the entire surface; keeping a distance of three millimetres (.11 of an inch) from the edge will be sufficient, be-

cause the consequent inflammation and suppuration will extend to and destroy the erectile tissue which lays beyond. If it is a spot, or a small tumor, an application of five or six minutes duration will suffice for its complete destruction. The immediate effect is the escape of a small quantity of blood which oozes through the caustic, but there is rarely sufficient to wash away the remedy or interfere with its effect. Should there be much hemorrhage it would be necessary to take away the paste and arrest it with perchloride of iron, or by compression.

A single application of the caustic generally suffices, but if necessary a second can be made, and then the layer should be very thin. After the application, I dress the eschar with a piece of agaire which adheres to it and drops off only with the destroyed parts. Cicatrization follows more or less rapidly. The Vienna paste causes cicatrices which are white, regular, and present nothing disagreeable to the eye.

This plan may be pursued in the case of cutaneous nævi, or even sub-cutaneous tumors, if superficial. But among these latter are those deeper and more extensive ones to which it would be difficult or dangerous to apply the caustic; it was in a case of this kind in the parotid region, alluded to before, in which I was obliged to resort to a very large number of setons.

If there is strong pulsation, if a well-marked vascular murmur is present, we think ligature of the main arterial trunk should be preferred. We have seen, however, one case in which the facial artery was tied for a small vascular and arterial tumor of the cheek, and the pulsation returned soon afterward. If, on the contrary, the suppleness of the tumor, the absence of pulsation and of murmur, lead us to believe that one of these deep-seated tumors belongs more particularly to the venous class, then setons should be employed.

But the remedy we make use of the most frequently and with the best results, is the actual cautery. The majority of writers, however, consider the effects of the actual cautery so much more grave than those of the bistoury as to counsel its employment only in those cases where the tumor is too large or too intimately connected with the healthy tissues to allow of extirpation, and for the destruction of parts of the morbid growth which may have escaped the knife. We are far from coinciding with this opinion. It is certain that a too extensive destruction of tissue would be followed by a suppuration which would enfeeble or even exhaust our little patients; therefore we are careful to proceed in such a manner as to run as little risk as possible. The object is, following the advice of Aug. Berard and others, to modify the erectile tissue rather than to destroy it.

We make use of a steel or platina needle, three or four centimetres [about 1¼–1½ inch] long, provided with a metallic head of sufficient size to allow of making several punctures without there being a too great loss of caloric. This needle is heated to a white heat and plunged into different parts of the tumor or spot. (Or the electric cautery may be used to the greatest advantage.) We commence, generally, by puncturing the base of the tumor. If the needle is not hot enough, there will be a flow of blood after each puncture, and the inflammation of the tissues will be insufficient for a cure. It is

important then, not to begin the operation too soon. Compresses, wet with cold water, are applied to the tumor immediately after the operation, and when suppuration begins, if the inflammation seems to be too intense, cataplasms may be ordered. Simple dressings will in all cases conclude the tr eatment.

It is rarely that the vascular tissue will be entirely modified by a single operation. We have been obliged in one case to practice ten cauterizations to cure radically a tumor the size of a large gooseberry, seated in the angle of the eye of a little girl; the affection had recurred several times. In another case we were compelled to pierce in every direction the nose of a child which was, as it were, transformed into erectile tissue, making seven or eight successive *seances*. In cases of this kind we allow an interval of eight, fifteen days, or even longer, between the operations.

Whatever may occur, we can not too strongly advise you to keep under watch the little patients operated on for a considerable time, even those who seem least likely to suffer a relapse. If a single red point manifests itself, one puncture will suffice for a definite cure.

We have never seen erysipelas follow this mode of operating, and we have lost but one patient, which died of convulsions four or five days after the operation; nor do we think this accident could be attributed to the cauterization.

Finally, we will conclude by alluding to the fact that there appears to be a disposition lately to return to the metallic ligature in the treatment of these cases; but it does not entirely remove the tumors, some of the vascular tissue is left behind. We have also recently demonstrated the superiority of the ecraseur as a means of removing these tumors without hemorrhage: but after both of these modes of treatment, we have seen a return of the disease, and have been still obliged to resort to caustics.

We have but little to say upon the true nævi or mother's marks. These pigmentary products, so variable, so irregular as to size and form, are sometimes only small circular spots, or a more or less deep hue, and smooth, or giving birth to several hairs; they may be destroyed by an application of Vienna paste, or by a touch of the actual cautery. Others of greater extent and depth, generally of a brown or bistre color, may cover an entire side of the face, and covered with hair, resemble the skin of an animal. They are not likely to increase by growth. Their cure has been attempted by tattooing, but I have never thought it advisable to follow the plan. In one case, where the nævus was of small extent, we succeeded with the Vienna paste. In doing this Chassaignac's plan may be followed, to apply the paste to the whole surface to be destroyed, if it is limited in extent; if not, to apply it several times successively upon different points, covering each application with a piece of agaric. It should be allowed to fall off, when the elimination of the eschar takes place, a cicatrized surface will be found below. In every case, no new application should be made until the former one has entirely produced its effect.

[A very interesting case of vascular tumor has lately fallen under my care, for which I attempted the operation of Guersant, but without success. The patient was a bright little girl about six months old. The tumor occupied the space between the angle of the jaw and the mastoid process, extending forward on the cheek, and backward and upward behind the ear, the ear itself being involved, and a part of the tumor filling and projecting from the meatus like a ripe cherry. It measured two and a half inches across transversely and perpendicularly, and three inches diagonally, the projection above the surface being considerable. Its color was bright red, the capillaries of the skin being affected, while its doughy feel, and the strong pulsation showed the arteries and veins to be also involved.

After carefully looking over the different plans of treatment recommended, of which every author has his favorite, I chose that in the text—puncturing with white hot needles. I used for the purpose, the Grover & Baker sewing machine needles, Nos. 5 and 6, which by their size and shape are admirably adapted for the purpose and entirely supersede the necessity of getting a special needle made. On the 25th of November I operated, assisted by Drs. Neal and Jennings of Dayton. The little patient was first placed fully under the influence of chloroform, and six or seven punctures were made in a radiating direction through the tumor, and one into the part projecting from the meatus. But the arrangement for heating the needles did not work as well as expected, and consequently the operation differed from that recommended in the text, in the important particulars that the needles were not nearly at a *white* heat. The little patient recovered well from the chloroform; subsidence of the pulsation and disappearance of the part projecting from the ear were immediately observed; after a few days suppuration set in, and the tumor steadily decreased in size, there being but little constitutional disturbance. All went well with the patient up to the 16th of December, three weeks after the operation, when it became manifestly ill, the tumor doing finely, the nature of the ailment was not well defined; two or three days afterward, however, erysipelas appeared about the umbilicus, and spread thence over the greater part of the body; this being cured, or having subsided, it commenced again, of lighter grade, at the seat of operation, and spread over one side of the head and face; even from this second attack it seemed to have fully recovered, when it was suddenly taken with oppressed breathing, nd cold extremities and soon died; the tumor at the time of death not being larger than a chestnut. The hygienic conditions were unfavorable, the family being in but two small, low rooms, a cook-stove in one of them. The erysipelas and the death, however, must undoubtedly be attributed to purulent absorption, or pyæmia—Tr.]

Prof. Daniel Brainard.

This well known surgeon, who has occupied the Chair of Surgery in Rush Medical College, ever since the college was organized, took his departure for Europe a few days since. His family had preceded him a few months, and it is understood that they intend to remain in Europe several years.—*Chicago Med. Examiner, Jan.*

Mr. Spencer Wells, of London, has recently removed the entire spleen, weighing six and a half pounds. Forty-eight hours afterward the patient was doing as well as could be expected.—*Lond. Times and Gazette.*

OBSTETRICS, DISEASES OF WOMEN, MATERIA MEDICA, AND THERAPEUTICS.

By THEOPHILUS PARVIN, M. D., Professor of Materia Medica and Therapeutics, Medical College of Ohio, and Clinical Lecturer on Diseases of Women at St. John's Hospital.

ART. I.—*A Clinical Lecture on Non-puerperal Pelvic Cellulitis.* By THEOPHILUS PARVIN, M..D.

(*Continued.*)

Pessaries are among the local causes to which *cellulitis* may sometimes be attributed. Of course a pessary of suitable material, form and size, and properly adapted, could never produce such mischief.

The co-incident uterine enlargement, which is well-marked in one of the patients that you have seen to-day, and which you will find in some cases of cellulitis, must not divert you from the real disease. In a recent report by Dr. Davis of the Middlesex Hospital, he states that in two out of thirteen cases of cellulitis—these two resulting from acute menstrual suppression—"the uterus was enlarged to the size of a five months' gravidity, and pregnancy was suspected; but the history and the character of the enlargement, with the symptoms, decided against the suspicion, and the result confirmed the decision."

It is important not to confound the disease under consideration with malignant formations similarly situated. Of course should the latter be well-advanced, there will generally be no danger of this sort; you will then have all the evidences of the *cancerous cachexia*—so graphically depicted by West, that one can't help remembering them when once read—and you will frequently have ascites as a final complication. Prior to such advanced stage, the presence or absence of hereditary tendency, of marked febrile disturbance, the existence or non-existence of cancerous disease in parts accessible to sight and touch, *e. g.*, the vaginal portion of the cervix uteri, will help you in attaining a correct diagnosis. Hectic fever, so long regarded as pathognomonic of purulent formation, we now know often happens entirely independent of such event; you may have it when the system is exhausted by a physiological drain, as from prolonged lactation, or by a pathological

drain, as when much nutritive material is consumed in the building up of local heterologous formations: hence this can not be taken as a mean of distinction between pelvic cancer and pelvic abscess.

Malignant pelvic tumors generally occur in one of two forms—uterine tumors of such sort are purposely excluded—either starting in the connective tissue in the vicinity of the uterus or in the uterine appendages; or else projecting from one or other ilium. Kiwisch refers to a patient in whom a large malignant mass projected from the inner surface of the ilium, in shape and position simulating an ovarian tumor. Quite recently, through the kindness of Dr. Dodge, I have had an opportunity of seeing a similar case of such comparatively rare disease —presenting, however, this difference, that by no possibility could the morbid growth be confounded with ovarian disease, but it could readily be, both from physical examination and from its history, mistaken for inflammation of the connective tissue.

Indeed, cellulitis I believed it to be upon my first examination; whatever doubt I had arose solely from the condition of the os and cervix uteri. An examination made a few weeks subsequently, established the fact of cancerous disease of the cervix, and thence the probability of the pelvic tumor being similar in character, a probability which was confirmed by the peculiar conformation of the growth. This iliac malignant tumor is characterized not only by its fixity, but especially by its great breadth of base. Besides, I believe that you will find in this, as well as in other varieties of pelvic cancerous growth, less sensitiveness, less thickening, and more mobility of the abdominal walls over this, than you will over the tumor arising from inflammation of the pelvic connective tissue.

The profession generally are agreed as to the seat of this disease. Possibly a physiological explanation can be given of the fact that inflammatory disorder manifests itself in this special tissue. You know that the connective is the lowest of the tissues—more easily destroyed and regenerated than any other—that it has not only its appropriate blood-vessels but also its series of anastomosing cells through which nutritive juices circulate; and hence may it not be peculiarly liable to those rapid vital changes, and that increased textural life—rapidity and increase so great that production fails of healthy structure, and only brings abnormal results—wherein is the essential phenomenon of inflammation?

You can see too, when you consider the anatomical structure of the connective tissue, how readily serous effusions may extend through it. König has, by experiments, illustrated the course which these effusions

take. "He found that injections of air or water thrown into the cellular tissue of the broad ligament near the Fallopian tube, traveled primarily along the course of the psoas and iliacus muscles, then sinking into the pelvis proper—that exudations starting from the part of the cellular tissue situated antero-laterally with reference to the uterus and its cervix, passed out laterally into the cellular tissue of the pelvis, and by the side of the bladder, and then with the round ligament, toward Poupart's ligament, thence extending to the iliac fossa externally and backward; if the starting point be the posterior part of the base of the lateral ligament, the postero-lateral parts of the pelvis are first filled, the effusion then passing toward the psoas and iliacus muscles." ["*The Diagnosis and Treatment of Diseases of Women*, by Graily Hewitt, M.D., London, 1863."]

Bernutz and Gonpil assert that this pelvic inflammation we have been considering is in truth almost always intra-peritoneal, a pelvi-peritonitis, affecting more especially the peritoneum surrounding the extremities of the Fallopian tubes and ovaries. But inflammation of the peritoneum is generally traumatic or septic, or else arises from disease of an organ invested by this membrane; doubtless in this latter way there is frequently in pelvic cellulitis a local peritonitis as result, but not as original disease: it seems to me that we should fall back upon the connective tissue as ordinarily the primary seat of the disorder.

As long as the effusion is simply serous, you may expect its ready absorption upon the subsidence of the inflammation. But the inflammatory disorder may manifest itself as a *constructive* process—organizable material thrown out, and organized product resulting; then you have a hard firm tumor which is a long while, on the one hand, in undergoing resolution, or on the other in softening down into pus. And finally, you will have in many cases of cellulitis, suppuration occurring at comparatively an early day. The occurrence of abscess should not lead you to despair of the possibility of absorption, provided the collection of matter is not large, for while *pus as pus can never be removed by the blood-vessels and lymphatics, yet the liquid portion may be, and nothing left behind but an innocent, cheesy matter; or else the pus cells themselves may undergo fatty metamorphosis, and then, in the form of an emulsionized liquid, may be entirely removed by the agents referred to. Neither of these processes obtaining, the pus makes its escape through one or other of various outlets, which I shall enumerate in the order of their frequency—the bowel, the external surface, the vagina, the bladder (a case of this kind, puerperal, however, oc-

* Virchow's Cellular Pathology.

curred in the practice of Prof. Graham last winter), and into the peritoneal cavity, an event which is generally, but probably not always, fatal.

Sometimes there may be two openings; some of you may remember a patient under my charge last winter in the hospital—she had been ill for more than a year when I first saw her—who had two or three openings in the groin, which communicated with an opening in the rectum, and through all of these pus was discharged. In this case, injection of dilute tincture of iodine, one part to seven of water, was attended with very satisfactory results.

As a rule, the more dependent, in reference to the abscess, the opening is, the better; but an external opening furnishes greater facility for local medication, so necessary in case the disease becomes chronic, and probably is therefore to be preferred to an exit through the vagina or rectum.

Pelvic cellulitis is a disease you need not be anxious to treat, if you are ambitious of having rapid recoveries, and of brilliant successes. In spite of your best efforts it will often become chronic, and sometimes, in either the acute or chronic stage, prove fatal. Dr. McClintock's statement, in his admirable "*Clinical Memoirs on Diseases of Women*," (Dublin, 1863), is, that in his experience the puerperal form of the disease has been less fatal than the non-puerperal. Probably this experience is in accordance with the truth, though at variance with the general opinion of the profession.

Your success, especially a prompt success, will greatly depend upon your seeing and recognizing the disease at the outset.

Rest in the recumbent position, probably might be placed among the first of your therapeutical agents. Let none of you think that this is a matter of minor importance. Consider what a lessening of the frequency and force of the heart's pulsations by the change from an erect to a horizontal position. Consider, too, how in such change you have no longer the force of gravity inviting further determination of blood and larger effusion in the inflamed pelvic tissues. Not only at the outset, but subsequently in the disease, when suppuration may have occurred, should you insist upon rest—an avoidance of all active and passive motion—for one of the ways in which, as often as all others, probably, cellulitis proves fatal, is by rupture of the abscess into the cavity of the peritoneum; such result occurred in a case that I had seen previously, from jolting on a railway train, the patient dying in a few hours.

Next to rest, leeching should be resorted to, and let the leeches be

applied preferably to such tumefied and tender part as you may detect in the vagina.

As to internal remedies, I think you may do as much good with muriate of ammonia gr. viii. and tartar emetic gr. 1-10, every four hours, as with any other; not forgetting where pain or wakefulness should require, the administration of opium or other anodyne narcotic. When there is great tenderness in the lower part of the abdomen, the free use of strong tincture of iodine, followed by warm fomentation, will be useful. Occasional vaginal anodyne injections, after leeching, will be often useful in relieving the local distress; but I am inclined to think that a better way, one too which would be useful with reference to the cure of the disease, than the injections referred to, or the ordinary anodyne uterine suppositories, would be found in the use of suppositories containing *iodoform*. You know that iodoform is analogous to chloroform in composition, the latter a ter-chloride of formyle, while the former is a ter-iodide, and that it produces very decided local anæsthesia; and you can easily see how a substance that shall act as a local anodyne and at the same time have the peculiar power of stimulating absorption, which is attributed to iodine, must be useful in this disease. Of course it is not every case that would be benefited by the administration of muriate of ammonia, in combination with tartar emetic (the two best given in mixture containing powdered extract of liquorice), but only such as exhibit very decided febrile disturbance; and at any rate the tartar emetic may be omitted after the first few days, but the muriate of ammonia, as long as *absorption* of the effusion can be hoped for, had better be continued.

But by and by, provided resolution does not occur by prompt and proper treatment at the outset, you will have great debility and hectic to contend with. Under these circumstances you know, of course, the value of a mineral aid, a bitter tonic and a chalybeate, of cod liver oil, of beef essence, of porter or ale. Suppuration having taken place, the evidence of this being found in constitutional symptoms and by local examination, are you to leave the matter to take whatever course it will in making an exit? If the tendency is to an external opening, by all means use warm fomentations or poultices to assist such tendency; to an opening in the vagina, we may, by frequent warm injections therein, hasten by the contributed warmth and moisture, the development of pus-cells, and thus the softening of tissue; the same end may often be promoted too, by having the patient, if her condition will permit, make frequent use of a warm hip-bath. Although one of the great dangers in *pelvic cellulitis* is rupture of the abscess into the cavity of the peri-

toneum, yet at the same time the presence and the pointing of matter should, as a rule, be unequivocally determined before resorting to puncture, whether such puncture be made exteriorly, through the vagina or through the rectum. Incisions through the rectum are sometimes attended, as pointed out by Prof. Simpson, with hemorrhage difficult of control, and hence, if the choice is given, opening the abscess through the vaginal wall, should be preferred to a rectal opening. In reference to this latter position for artificial evacuation, in the vagina, though it should be remembered that "a pointed instrument passed through the vaginal cul de sac, invariably enters the peritoneal cavity, unless the tumor to be punctured is developed under the recto-vaginal peritoneal fold. Surgical punctures have again and again been made in other parts of the vagina with results amply confirming anatomical anticipations, and proving, if proofs were needed, that such proceedings are utterly unjustifiable, in the absence of the clearest indications that the tumor to be punctured is adherent to and immediately behind the vaginal wall." [*Illustrations of the Surgery of the Female Pelvic Organs. By Henry Savage, M.D., London*, 1863.]

And still farther, in reference to this puncturing pelvic abscess, Dr. West says, "the attempt to anticipate by puncture the exact course which the pus may take is very frequently unsuccessful, and not always safe;" "and he mentions a case where an operator endeavored to puncture an abscess from the vagina, no pus followed, for the trocar had at once entered the bladder through the firm edematous vesico-vaginal wall; happily, however, no bad consequence followed." [*McClintock.*]

Professor Simpson advises when suspicious, but not certain, of the presence of pus, a preliminary exploration with a fine trocar. The opening once determined upon, may be made with an ordinary straight, narrow bistoury, with a tenotomy knife (this is the instrument preferred by Prof. Simpson in making a vaginal outlet), or with the common trocar.

You will frequently find that the discharge, whether through spontaneous or artificial outlet, is at first, or subsequently becomes, very offensive; in such condition, the injection of a solution of permanganate of potash should not be forgotten.

Should the abscess become chronic and thus persist in spite of judicious constitutional treatment, you will not forget, when you have the opening accessible, the injection of tincture of iodine diluted with eight or ten parts of water.

ART. II.—*Materia Medica for the use of Students.* By JOHN B. BIDDLE, M. D. *Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, etc. Philadelphia,* LINDSAY & BLAKISTON, 1865.

This volume would be difficult of recognition, so much has it been increased in size, by those members of our profession who were familiar in their student days with "Biddle's Review" as the revised edition thereof. The just reputation of the author, his ability and position, furnish sufficient guarantee that this is a good book of its kind. But against its kind—against the whole generation of "Compends" and "Vade Mecums"—we desire to protest. We believe them pernicious to thoroughness of attainment; they make smatterers rather than students, and they are volumes which, as a rule, are entirely useless in a physician's library. What medical man cares to look into them for guidance in the conduct of a difficult case, or in the ordinary course of his professional reading?

If we are to have *manuals* let them be such as Churchill, of London, publishes, contrasting so strongly in portability and completeness with many of our publications. Here upon our table is, for example, "A Manual of Practical Therapeutics, etc.," by Waring ("the best book on Materia Medica and Therapeutics in the English language," Professor Simpson once told us); its absolute bulk is somewhat greater, but its shape more convenient than "Biddle" is, and it contains, we should think, about six times as much matter: besides, it is a volume of permanent value; the physician will not let it go from his library. Medical students in general do not have such plethoric pockets that they can buy books for merely temporary uses, and publishers and authors should see to it that such students get the most that can be given them for their money. Why should the American edition of "Garrod's Essentials," an excellent book by the way, be printed in such a style that our book is a third larger than the English? If the expected readers thereof are all sexagenarians, it might be well enough to have such large type and interspaces, and such wide margins. Give us, O American Publishers, we beseech you give us more printing and less paper, especially in these days when the latter article is so dear! Let largeness of type and breadth of margin be sacrificed, if need be, for the sake of more reading matter.

Passing from general to particular criticism, we find in the volume in hand more than one statement which may, speaking in the mildest terms, admit of dispute.

On page 105 we are told that the officinal sulphate of quinia "is chemically a *di-sulphate* or *sub-sulphate,* consisting of two equivalents of base to one of acid." Now if this be true our own and the British Pharmacopœia are at fault in not so stating; and also, the opinion of the authors of the U. S. Dispensatory is erroneous. Turning to "Garrod's Essentials," London edition, p. 223, we find its author giving the formula for the simple sulphate, not a disulphate, and stating that it "has all the characters of a neutral salt." So, too, "Neligan," 6th edition, edited by Mac Namara, on the same point: "this

salt is composed of one equivalent of quinia, one of sulphuric acid, and eight of water." Still farther we find essentially the same statement made by Mohr in his "*Commentar zur Preussischen Pharmacopœ*," Braunchweig, 1863.

"—gallic is probably converted into tannic acid in the blood," p. 128. Any one who will study the *formula* of each acid, and will remember that the urine of patients taking tannic acid shows the presence of no *tannic* but of *gallic* acid, will hardly believe Dr. Biddle's probability as anything but an impossibility.

Taraxacum, page 233, is declared, as is usual, to have "a special determination to the liver." A majority of the profession have grown decidedly skeptical on this point, and their skepticism is confirmed by the investigations of Dr. Garrod. Cholagogues are needlessly numerous on paper, but sadly few in practice.

On page 263, we read, in reference to administering iodine: "To avoid gastric irritation it is best given after a meal, particularly after amylaceous substances have been taken, as it forms with them iodide of starch." We are curious to know how soon a medicine will manifest its remedial influence when such precaution is taken to immediately precede it by its specific antidote! Moreover if iodide of starch can be given three times a day in doses from a teaspoonful to a tablespoonful or more, what evil or good from the administration of six drops of the compound solution of iodine as often with an indefinite amount of starch. The truth, as we believe, is, iodine is best administered an hour or two before a meal; if gastric irritation occur, the stomach is not in a proper condition or the remedy is given in too large a dose; and the patient while under iodine treatment should live mainly upon an animal diet.

"Gamboge is a GUM-RESIN procured in Siam and Cochin China; the concrete juice of a tree which has never yet been examined by botanists," p. 214. This statement is made in October, 1865. In the LV. number of "THE TECHNOLOGIST, London, February 1st, 1865, will be found a communication from Daniel Hanbury, F. L. S., on the "Botanical Origin of Gamboge." The researches of Mr. Hanbury were so satisfactory that Professor Bentley said in his opinion "he had put the last link in the chain of evidence necessary to prove the botanical source of our commercial gamboge. Commercial gamboge"—we take the liberty of italicizing the following words—"*as was well-known, was derived from Siam;* it did not differ in any marked particular from the gamboge of Ceylon, and the botanical source of the two kinds had now been satisfactorily traced to varieties of the same species of *Garcinia*."

Is not the quantity of chloroform which Dr. Biddle directs, p. 75, for the stomach, ℥ss–℥j, needlessly large in many cases, injuriously large in some? Most authors direct from one to ten minnims.

"The habitual use of tobacco as an exhilarant is well known," p. 55. Now if we had not read the succeeding passage in another work upon Materia Medica and Therapeutics, we should have been somewhat skeptical as to this statement. "The fumes are retained a short time in the lungs, and then emitted through the nostrils, or, as by our own more dextrous smokers of

tobacco through the ears also" (Stille,* 2d edition, p. 663). We verily believe that one of "our more dextrous smokers of tobacco" (why not ambidextrous, most ambidextrous?) discharging the fragrant and fuliginous product of his cigar or meerschaum, not *per oram* at all, nor wholly *per nares*, but *per aures* also, would himself be exhilarated and would exhilarate all who witnessed the spectacle. But seriously, tobacco, though a local stimulant, is a general sedative; and we doubt whether any one seeks or finds *exhilaration* in the use of the "favorite weed." Tobacco is not to be regarded in its effects as analogous to the milder alcoholic stimulants; it does not gladden and enliven like wine. Its friends† "will tell of the quiet it brings to the overworn body, and to the irritable and restless mind;" it calms the excited brain and the hurrying heart; it tranquilizes and soothes disturbed emotions; but such influences are not "exhilarant."

We had marked other passages for reference, but our notice is already sufficiently protracted.

Dr. Biddle can not do justice to himself, to his subject, nor, as we believe, to medical students, in the compass of his present work. We trust that at no distant day he will give to the profession a volume upon materia medica more complete and in some few respects, of greater accuracy, than the present.

ART. III.—*A case of Vesico-Vaginal Fistula—Successful Operation.* By THEOPHILUS PARVIN, M. D.

Operations for vesico-vaginal fistula are neither so rare of occurrence, nor in general so difficult of performance, as ordinarily to invite special record. But occasionally, the lesion for which operative procedure is demanded, may be peculiar, or be complicated with other lesions; and hence, a special interest attaches to the operations resorted to, the interest enhanced by an entirely satisfactory result or results.

In November last, Mrs. C——, twenty-nine years of age, came under my charge at St. John's Hospital. About a year previously she was delivered, *without the use of instruments, after three days' labor*, of a first child, still born.

She thinks that a short time after the completion of her labor, she first noticed the water dribbling through the vagina. At any rate she had severe vaginal inflammation, and was confined to her bed for four months.

* We ought, in justice to this distinguished author of one of the best works on Materia Medica and Therapeutics ever published in any country, to say that he seems to have derived the above statement from Dr. McPherson's *Two Years in China*.

Dr. Anthony Todd Thompson, in his 3d edition, p. 421, on the same subject, "Opium Smoking," quotes Marsden thus: "The smoke is never emitted by the mouth, but usually receives vent through the nostrils, and sometimes, by adepts, through the passage of the ears and eyes."

As to the vent by the eyes, we are willing to believe, for though we have never seen nasal ducts converted into escape pipes, yet some of our smoking friends assert that they have done it. But the vent by the ears! The only foundation for our faith in this is that of one of the Christian Fathers, who, in reference to other matters, declared, *credo quia impossibile*.

† "For and Against Tobacco," by B. W. Richardson, London, 1865.

Upon examination I found two thirds of the urethra gone, and the remaining portion impermeable; a transverse vesico-vaginal fistula some two inches in length; and a recto-vaginal fistula, triangular in shape, its apex below, and base above, extending from half an inch within the anus, nearly to the posterior attachment of the vagina to the cervix uteri.

My first effort was to close the recto-vaginal opening, my reason for the selection of this was to prevent the feces, which mainly then escaped from the bowel, from interfering with the success of the operation intended upon the vesical opening by coming into contact with the line of union of the freshened surfaces; and besides, the satisfactory use of the speculum—'the duck bill"—was interfered with by two thirds of the instrument not pressing against a recto-vaginal wall, but sinking into a rectal fossa. After paring the edges, (I much prefer, after some trial, for all these operations, a simple long, straight scalpel, to any curved or angular instruments, or scissors, even including those of Dr. Emmett, which are the best I have seen), and introducing the wires and tightening them, proceeding from below, upward, I found that as the upper wires were twisted, I was converting the vagina into a complete cul de sac, a vulvar outlet, but no uterine inlet, the uterus with a persistent obstinacy having os and cervix in the rectum, and neither uterine sound nor curved spatula could retain them in their natural canal—the house was being roofed over very nicely, but the chimney left on the outside!

Now while quotations might be introduced from Churchill, from Baker Brown (Surgical Diseases of Women), from Mr. Hutchison (Surgical Diseases of Women, 4th vol. Holmes's System of Surgery), and from others, to prove that an operation is perfectly justifiable in a similar condition of things *anteriorly* to fix the neck of the uterus in the bladder, and let menstruation occur *per urethram* instead of *per vaginam*, and with equal reason such a rule might be made with reference to the case in hand, yet I did not feel justified, without being better satisfied of the impossibility of doing otherwise, in making a vagina of the rectum. Consequently, only six or seven of the lower sutures were twisted. The patient did well after the operation; in ten days the stitches were removed, and I found a gain of about two inches.

Subsequently the urethral canal, or what remained thereof, was opened, and as soon as its permeability was fairly established, the operation for the relief of the vesico-vaginal opening was undertaken. There was nothing remarkable in regard to the execution of this, except the great difficulty in denuding the superior edge of the fistula; this difficulty arose from the fact that it was overlapped and fastened to a portion of the everted mucous membrane of the bladder, this singular eversion was nearly the size of the first joint of the thumb. I believe that this plays an important part in the satisfactory result, for, drawn down to the outlet of the bladder, I think it may act partially as a plug, and thus enabling the patient to retain her water when she otherwise could not. The edges of the fistula were brought together with eight silver sutures—indeed the apposition was so complete, that some of the professional gentlemen expressed no doubt as to a perfect cure. Five of the stitches were removed in ten days, while the other three remained

erly a month. For a few days after the removal of the first sutures I was apprehensive that the union was not quite complete; but upon removing the last it was ascertained by myself and others, that this apprehension was ill-founded. Not only is the fistula entirely cured, but the patient has remarkable power in retaining the urine; to use her own language, she "can hold her water as long as she wants to." However, though while sitting up she retains her water for five hours, yet when walking about there is some dribbling; but it is nothing in comparison with what she suffered from constantly, prior to the operation.

A few days since the rectal opening was operated on a second time, and I have no doubt the result will be almost, if not quite, complete closure. There was this facility in the second operation: the very free paring of the edges of the vesico-vaginal fistula, and their union had shortened the anterior vaginal wall, so that no great difficulty was experienced in retaining the cervix uteri in its normal position.

I can not terminate this paper without thanking the professional gentlemen who were present and assisted, at one or more of these several operations; especially are my thanks due to Dr. Carson, Dr. Foster, Dr. Moore, and to Dr. Geo. Fries, a man whose worth is above all praise. To Messrs. Stæbler and Floyd, resident medical students at St. John's, my thanks are given, not only for assistance during the operations, but for careful subsequent attentions to the patient. These "after-attentions" in vesico-vaginal fistula cases are quite as important as, if not more important than, the original operation, in order to insure success. An obstructed catheter, or careless syringing, will be very apt to render of no avail the most satisfactory operative proceeding in such a case.

ART. IV.—*Singular Mal-formation.* By ISAAC. M. ROSENTHAL, M. D., Fort Wayne, Ind.

Mrs. K——, after riding over a rough road, in a farm wagon, was taken with uterine hemorrhage, followed by uterine contractions. Upon being called to her I removed a two months' fœtus. On further examination I found a fleshy mass protruding from the upper part of the vagina. Not willing to leave my patient thus, I requested an ocular examination, to which she consented. There was no anus, only a darkish circle where it should be. The rectum entered the upper part of the vagina, and projected toward the vulva; it was provided with a sphincter, and she suffered no inconvenience in reference to evacuations from the bowels; indeed none of her friends, save her mother, knew of her deformity. She is the mother of several living children.

We thank our friend, Dr. Rosenthal, for the communication of this remarkable case.

Ordinarily in cases of imperforate anus and communication between the rectum and vagina, this communication takes place at the posterior commissure of the latter.

We should think, knowing how great oftentimes the protrusion of mucous membrane is in cases of recto-vaginal fistulæ, that the greater part of, if not all, the "fleshy mass" to which the Dr. refers, was similar in character.

PRACTICAL MEDICINE, PHYSIOLOGY AND CHEMISTRY.

By ROBERTS BARTHOLOW, M.D., Professor of Physics and Medical Chemistry in the Medical College of Ohio; Lecturer on Clinical Medicine and Physician to St. John's Hospital, etc.

ART. I.—*On the Pathology and Treatment of Spermatorrhea.* By ROBERTS BARTHOLOW, M.D.

[*Continued from the January Number.*]

The various methods of treatment which have been pursued in spermatorrhea may be referred to either the medical or surgical order.

The medical has consisted, in the main, in efforts to improve the general health by appropriate tonics, as iron, quinine, strychnia, sea-bathing, douches; by suitable dietetics; by improved hygiene, etc.

The surgical has been directed more particularly to the state of the genital organs, which are presumed to be in a condition of disease. Hence the application of the *porte caustique* to the prostatic portion of the urethra; the use of injections of nitrate of silver, of sulphate of copper and of acetate of lead; cold hip-bathing and injections of cold water into the rectum. In the surgical order may be classed the mechanical appliances for preventing emissions; for instance, a leather ring armed with metallic points, large enough to be worn without discomfort until an erection occur when the pricking will arouse the patient.

It is well known that these methods of treatment frequently fail. The medical is more successful than the surgical. Few practical surgeons at the present day will assent to the *dictum* of Lallemand, that "two-thirds of the cases of spermatorrhea would be beyond the reach of medical assistance, were it not for the beneficial effects produced by the application of the nitrate of silver to the prostatic portion of the urethra." That the porte caustique may be useful in a few instances by reason of the moral effect upon the patient is probably true. That it cures the disease by relieving the so-called "irritable state" of that part of the canal is undoubtedly incorrect. Not only does it fail to cure the patient, but the application of the caustic is often followed by most serious consequences. In all cases it produces great irritation, frequently strangury and bloody urine, and sometimes dangerous urethritis and cystitis. When the patient is relieved of these symptoms,

he may confound this feeling of relief with a real improvement, to be undeceived, however, in the further progress of his case. Sometimes recovery does not take place from the effects of the application of the porte caustique, but a troublesome narrowing of the urethra, constituting organic stricture, remains to weary the patient and complicate the treatment.

Little can be said in favor of injections into the urethra or mechanical means to prevent the involuntary emission. They are injurious —if for no other reason—by fixing the attention of the patient upon his disagreeable infirmity; but they, also, by increasing the peripheral irritation, increase the reflex excitability of the cord. The use of stimulant diuretics, such as copaiba and cubebs, need only be mentioned to be condemned.

The medical treatment, the writer ventures to assert, frequently fails, because it does not enter sufficiently into that condition of the nervous centers, upon which the spermatorrhea, mainly depends.

In the management of this affection it is necessary that we keep in view the pathological states, pertaining to its several phases.

In the genital form of spermatorrhea there are associated with the peripheral irritation, increased reflex excitability and derangement of the primary assimilation. There may be more or less emaciation, or plethora; more usually the former. The therapeutical methods are indicated in this brief pathological summary. The peripheral irritation and the reflex excitability must be diminished. To accomplish this important object, the continued drafts of nervous force consequent on venereal excitement must be suspended. The patient should cease his excesses whatever they may have been, and avoid all sources of excitement, whether the reading improper publications, suggestive novels or works upon his own malady, or the society of women of easy virtue. The liberties between the sexes permitted by custom in many places and in certain circles of society without extending so far as the gratification of desire, are so very injurious to young men with "seminal weakness" that they should be absolutely interdicted. The mind of the patient, should, as far as possible, be freed from any association with his infirmity. Hence constant and agreeable employment, physical rather than mental, or an association of the two, is especially desirable. The patient may be much aided in the execution of these plans for his improvement by the administration of anaphrodisiacs of which the bromide of potassium is, incomparably, the chief. To a man suffering under the genital form, twenty to forty grains of the bromide may be given every night until sexual desire is entirely suspended. The quan-

tity of the remedy which will be required to accomplish this result, will vary in different individuals. At the same time the general condition of the patient must not be neglected. If he is plethoric, his digestion active and his bowels constipated, he will be benefited, if somewhat reduced by saline cathartics, by *liquor potassæ*, by a less liberal diet and by diminishing the number of hours devoted to sleep. It is not frequently, however, that spermatorrhea is associated with a condition of plethora: the opposite condition or anæmia is the rule. In this latter condition the reflex excitability of the cord is so much increased that the feeblest irritation produces a prompt emission and the frequent discharges of nervous force affect the supply to all the organs —whence come, palpitation, indigestion, constipation, irritable bladder, pain in the back, debility and mental feebleness. In this condition the bromide of potassium is indicated to diminish the reflex excitability of the cord and to suspend the sexual appetite, and iron, quinine and other remedies to improve the general health.

Whether the patient be plethoric or anæmic, remedies should be employed to relieve congestion of the cord, which occurs to a greater or less extent in every case. As the involuntary emissions are usually nocturnal, and occur chiefly when the patient is lying on his back, the cord being then most dependent, management of the position in bed is an important part of the treatment. He should lie upon his side and if unable to continue in this position when asleep, should adopt some mechanical appliance to compel it. Tying the hand to the post of the bed, or the contrivance of Lallemand will accomplish this object. The remedial agents for affecting the same purpose, are still more important. In addition to the bromide of potassium which possesses this property to a very considerable degree, *belladonnæ* and *ergot* may be employed. One fourth of a grain of the extract of belladonna and two grains of Bonjean's ergotin, or five grains of fresh ergot, may be given three times a day. In anæmic cases iron may be combined with the preceding remedies.

By these means the sexual appetite may be completely suspended, the morbid excitability of the reflex function and the congestion of the cord may be cured. These efforts must be continued until the irritability of the genital organs subsides. Having accomplished these objects an important duty yet remains—we must restore the patient to the proper performance of his sexual functions and this must be accomplished in such a way that he will not lapse into his former infirmity. The doses of bromide must be diminished, and finally the remedy discontinued; the ergot and belladonna must be suspended, and tonics

and special excitants must be employed. Extract of nux vomica or strychnia, with the saccharated carbonate of iron, is a combination very useful for this purpose. To control the action of the nux vomica and prevent too sudden stimulation of the cord, it is frequently desirable to combine belladonna with the strychnia and iron. However paradoxical, such a combination may appear—seeing that strychnia and belladonna are in some respects, physiologically antagonistic—it has been too frequently beneficial to be rejected on theoretical grounds. Cannabis Indica and allotropic phosphorus, are, also, useful in restoring the normal activity of the generative organs after this suspension of their actions by remedies.

During the whole period of time occupied by this treatment, certain accessories must not be disregarded. Simple but nutritious food must be taken; the supper should be light and eaten four or five hours previous to retiring, and stimulants should be avoided. Fluids and articles of food having a diuretic action, should be sparingly used, since, erections occur in consequence of a full bladder. Laxatives are indicated, if constipation exist, but not otherwise. A quart of cold water thrown into the rectum, will often act more beneficially than laxatives.

In that phase of spermatorrhea which has been denominated the cerebral, serious difficulties are encountered. In addition to that derangement of the sexual-spinal system, described under the genital form, there exists the complication of mental derangement. If this derangement have proceeded no further than melancholia or delusional insanity, something may be done to arrest its progress and restore the *mens sana in corpore sano*. If dementia or complete fatuity have resulted, the case may be considered nearly or quite hopeless. A smaller number of these cases would probably find their way into our asylums, if physicians generally paid more attention to the moral, mental and remedial management of them in their incipiency. The difficulty in these cases arises from the fact that no moral influences can be used to interrupt the habit of abuse. The mechanical and other appliances which have been employed for this purpose, are merely temporary expedients which more usually fail than succeed.

It is in these psychical affections dependent upon abuse that the bromide of potassium manifests peculiar powers. Under the use of this remedy the reason frequently gains control of the disordered imagination. Beside, by destroying desire, it does away with the temptation to repetitions of abuse. When this result has been accomplished, the chain of morbid impressions must be still further interrupted by change

of scene and agreeable occupation, especially physical employment. Until the treatment has proceeded so far, it will not be desirable to use those means which have been suggested for diminishing the reflex excitability and for restoring the perverted functions.

In the spinal form of spermatorrhea, which, as exhibited in the illustrative case given under that head, manifests itself by loss of power, altered and referred sensations, paraplegia etc., there is probably structural alteration of the cord, notwithstanding, the derangement may appear to be merely reflex. So long continued functional derangement, would certainly result in organic change. In this condition of the cord whether reflex or centric, it is not prudent to administer the bromide of potassium, which in large doses has produced, as one of its physiological actions, loss of power and paralysis of inferior extremities. Strychnia is still more objectionable if the lesion be centric. The remedies which have been most effectual in this condition are belladonna, cimicifuga, nitrate of silver, etc. The extract of belladonna may be used in a mixture with fluid extract of cimicifuga. This prescription is applicable to a less advanced stage of the disease. When paraplegia occurs the nitrate of silver is an appropriate remedy, but the tendency of this salt to be deposited in the skin, producing an unpleasant discoloration, must not be forgotten. If structural change has been arrested, or the paraplegia be merely reflex, then faradisation, strychnia, and other remedies appropriate to such a state may be used with advantage.

In the typical cases presented in illustration of the several phases of spermatorrhea, the treatment inculcated in this paper has been pursued. It may be useful to state the result. In the first case, the nightly emissions have been reduced to one in a period of about ten days; his general health is much improved, and his mind elevated from a state of despondency to cheerfulness and a confident expectation of speedy recovery. Case II has been discharged cured, after two months' stay in the hospital. His treatment consisted in the administration every night of forty grains of the bromide of potassium, and three times a day a pill containing one fourth of a grain of extract of nux vomica, three drops of fluid extract of ergot or one fourth of a grain of extract of belladonna, and three grains of saccharated carbonate of iron. His delirium and hallucinations ceased on the second night after commencing these remedies. Case III left the hospital after ten days' stay, relieved, but not cured, and Case IV is traveling in pursuance of his business and may now be considered well. At last report his symptoms had disappeared and he was restored to a state of health altogether unusual in his experience.

I have not thus far, alluded to some of the moral and social questions which belong to this subject. The physician is not unfrequently desired to give an opinion as to the propriety of marriage of young men suffering from spermatorrhea. A wise judgment is not easily made up on this question. Attention to the following rules, will, at least facilitate a solution of the problem:

1. If the spermatorrhea exist in the cerebral or spinal form, marriage is improper.

2. Marriage is proper in the genital form, if the marriage rite may be consummated, although imperfectly.

3. Marriage should never be recommended as a curative means.

There can be no doubt that judicious sexual intercourse will prove curative in the genital phase, provided that the reflex excitability of the cord be not so great as to prevent intromission of the male organ. Disappointment and unhappiness almost invariably result when marriage is resorted to as a remedy.

The management of youths, addicted to masturbation, and the treatment of impotence, pertain to this subject, but are omitted for want of space. The case of the former appeals strongly to our philanthropy and is worthy of our best efforts; the latter is not without importance in a moral and social point of view. In a future number I may discuss these subjects at a length corresponding to their importance.

ART. II.—*Prurigo, complicated with Scabies and Ecthyma.* By N. B. WELLS, M. D., La Grange, Ky.

(*Read before the Sydenham Society.*)

Not being very certain what place to assign the disease under consideration, I have, on good authority, called it Prurigo, and from its widely extended prevalence, it may be styled Epidemic Prurigo.

This disease now prevails to a very annoying extent in many parts of this country, and has thus prevailed for the last five years. It is not confined to Kentucky. It is said to have been very common in our late armies, whence it received the names, "army itch" and through the south, "Illinois Itch," etc.

Symptoms. It usually makes its appearance by intense pruritus of the cutaneous surface, especially when the patient gets warm, by the fire, or in bed at night. The itching is usually changed into a burning and stinging sensation, in consequence of the scratching, similar to that caused by the sting of the mosquito; and a slight elevation of the skin follows, in the top

of which, there is a very minute vesicle, almost or quite invisible to the eye: this vesicle is ruptured by the nails of the patient, and very soon, a small dark scab is formed. I have generally observed this eruption, in its milder forms, to appear most often upon the insides of the arms, and thighs; also upon the shoulders, in the armpits, and upon the sides of the chest. But in severe cases, it spreads from point to point, so that, in a few days, the whole body is thickly set with the eruption. I have seen it extended to the hands and between the fingers—also to the neck and about the edge of the hair on the temples. In such cases as these, where it appears in large pustules about the fingers and in the palms of the hands and the wrist-joints, I have regarded it as complicated with Scabies. In other cases the disease assumes a very malignant form, the eruption being characterized by large pustulæ, both psydracious and phlyzacious—either minute pustules irregularly circumscribed, producing but a slight elevation of the cuticle, and terminating in a "laminated scab," or a larger size, "raised on a hard, circular base of a vivid red color, and succeeded by a dark colored scab." I have regarded this complication as being Ecthyma, as it is well known that Prurigo is often accompanied by Ecthyma, Scabies, etc., and we may, I think, safely conclude that where we find evidences of contagion in any case, or number of cases, that there is a mixture of *scabies* in it. The pustules have generally appeared upon the lower extremities, especially about the ankles, feet, and sometimes on the nates, thighs and the hip-joints; also on the perineum, scrotum, etc. In some cases again, I have seen large boils appear upon the hip-joints, and in the popliteal region, discharging large quantities of matter, for ten days or two weeks, and finally closing up as any other abscess, leaving a deep pit of a blue or livid color. In such cases, there is generally observable, a disordered state of the system, which, perhaps, existed for some time previous to the outbreak of the prurigo.

The disease under consideration, is of very variable duration. I have never known a case to recover under four or six weeks; and as a rule, I think it lasts for about two months. But I have seen several cases, reported to have been on hands for two, three, and four years, after the skill of some of our best practitioners had been exhausted in attempting their cure. This is truly a discouraging tale to tell of this affection, to those laboring under it; but it is, nevertheless, true. No age seems to be exempt from the disease before us—the infant, the adolescent, the full grown, and the aged, all, seem alike liable to it. Neither does sex seem to make any difference.

As to the cause, or causes of this disease, as experienced in this country, it is difficult to assign any definite one. It would seem, as a general rule, to depend upon some epidemic influence, yet, as already intimated, under certain circumstances, it is seemingly communicable, one to another.

Treatment. Recognizing a constitutional vice in this disease, my treatment is directed to the correction of every constitutional disorder that can be discovered. In other words, each organ should be interrogated, as it were and brought into a purely physiological state; and thus, by securing the proper functional action of each emunctory, thereby to eliminate the blood poisoning.

The bowels should be well cleared with such purgatives as calomel and colocynth, and this course should be kept up at suitable intervals, till the liver is thoroughly stimulated to a healthy performance of its functions, and throughout the treatment, this important emunctory should be kept active. In enfeebled or broken-down constitutions, active purgation might not be admissible; but a mild course of blue pill, or proto-iodid hydr. in alterative portions, kept up for some time, short of ptyalism, might be preferable; the cleansing of the tongue of all coating, serving as an index as to the extent to carry these agents. The kidneys also being very important emunctories, the various salts of potassa are valuable remedies in securing their eliminative action. The acetate and the bicarbonate of potash are most usually resorted to. The iodide of potassa is peculiarly suited to chronic skin affections, as asserted by Dr. Neligan. I have used it, dissolved in the fluid extract of sarsaparilla, with complete success, in several cases of this disease, especially in old and broken down constitutions. Arsenic is another agent of signal curative power, in old and rebellious cases, where other remedies have been tried in vain. Fowler's solution is the form most suitable. It frequently requires to be persevered in, however, for a long time, to effect a cure. In anæmic cases, the preparations of iron are valuable adjuncts, having combined with them, the extract of hyoscyamus, or Dover's powder, where there is danger of over stimulation by the iron. Where the disease has become chronic, and resisted other methods of treatment, Dr. Neligan recommends more active remedies, especially such as influence the nervous system. "Nux vomica or its alkaloid," he says, "and tincture of aconite, often prove useful." "The former of these," he continues, "has succeeded in my hands when all other remedies seemed to fail;" it may be given in the following form, a combination which will be found to promote a healthy condition of the digestive organs, and to correct the loss of tone which they exhibit in this disease:—

℞—Extr. Nucis Vomicæ grs. iij.
Fellis Bovini Inspissati grs. vj.
Extr. Taraxaci grs. xxiv.
Pulvis Myrrhæ grs. xviij.
M.—and divide into 24 pills. One to be taken three times a day.

I come, now, to speak of the local applications in this disease. In certain mild cases, in conjunction with the constitutional treatment above indicated, I have found the simple warm water bath, following frictions of the body with common soap, to be successful. In others, a warm soda bath has proved very beneficial. In more rebellious cases, I have found it necessary to resort to inunctions of an ointment composed of sulphur and lard, preceding each with a bath of hot soap suds. This I have found completely successful in many cases. But it has signally failed in many, where no constitutional treatment was used simultaneously with it. In others, it proves successful alone, as they are, clearly, cases of scabies, with prurigo as a complication.

A solution of the sulphuret of potassium has also been used, in the form of a hot bath, with fine effect.

In very chronic and rebellious cases, Dr. Neligan speaks very highly of chloroform, as a local application, to allay the extreme hyperæsthesia of the skin. The following is the recipe, viz:

℞—Iodid Plumbi grs. xij.
Ung. Ceræ Albæ ℥j.
Chloroformi M. viij. adm. xij.
Glycerinæ ℥j. Misce.

In all cases where greasy applications are used, a hot soap or alkaline bath should be used every night. In all cases, the diet should be restricted—all greasy and stimulating articles being prohibited. A milk and farinaceous regimen is certainly far preferable, their quantity and quality being regulated with reference to the amount of vital power in each case.

ART. III.—*Reports on the Extent and Nature of the Materials, available for the Preparation of a Medical and Surgical History of the Rebellion. Circular No.* 6, *Surgeon General's Office, Washington, November* 1, 1865. *Printed for the Surgeon General's Office, by J. B. Lippincott & Co., Philadelphia*, 1865.

We propose to notice in this place the medical portion of these reports, submitted to Surgeon General Barnes, by Dr. J. J. Woodward. To such of our readers as are not familiar with the organization of the Surgeon General's bureau, it may be necessary to mention that the medical statistics of the Army and the Army Medical Museum are divided into two sections—Surgical and Medical. Dr. Woodward, Asst. Surgeon and Brevet Major U. S. A., is in charge of the latter. His report is intended only to exhibit the character and extent of the data which have accumulated in his division. He expresses the opinion in concluding his report that with the "utmost brevity and care it may be hoped to digest the material above sketched, not including surgical cases, into three quarto-volumes, of about the size of the volumes of the Medical Statistics heretofore published."

"The prominent subjects in these volumes would be the medical statistics of the several armies, with the principal facts in their medical histories; the medical statistics of the several general hospitals with descriptions of their construction and administration, ... and lastly, an account of the causes, history, symptoms, pathology and treatment of the principal diseases of the troops, based upon statistical facts, contributed papers, histories of cases and autopsies, and observations made in the medical and microscopical sections of the museum. This part of the work it is proposed to illustrate with such colored plates of morbid conditions and representations of the microscopical anatomy of the chief diseases as may be necessary to preserve

for the future study of medical men, a faithful account of the costly experience of the medical department during the war."

The extent and value of the material accumulated in the Army Medical Museum, may be illustrated by the fact that the medical series consists of 700 specimens, chiefly wet preparations preserved in alcohol, and the microscopical series of 1400 specimens. These are distinct from the surgical specimens. The monthly sick reports, special reports from medical officers and reports of cases, autopsies, etc., for the whole war, are in process of arrangement, furnishing an amount of material heretofore unequaled in the world.

Dr. Woodward recognizes the errors which are likely to exist in the statistical tables, compiled from reports in which mistakes of diagnosis, negligence, omissions, or falsehoods may occur. That these errors are sufficiently numerous and important to rob the medical statistics of our army of their practical value, may be emphatically denied. He hopes to compress the statistical tables necessary to present the data collected in a convenient shape for study, into one quarto volume. These tables will show the mortality rates; the general prevalence of disease; the constant sickness rates; the comparative frequency of the several diseases, etc. They will be accompanied by diagrams showing the monthly rates of prevalence of the various diseases.

But Dr. Woodward's plans contemplate a much wider scope than a mere digest of the statistics which have accumulated in his department.

The pathology and morbid anatomy of army diseases are being carefully studied in the medical section of the museum. The important results being attained in these researches, are foreshadowed in the report before us. In a beautiful chromo-lithograph (p. 146), we have an illustration of the mode in which it is proposed to reproduce the morbid anatomy of various diseases. "It is desired to publish in the Medical History of the War about thirty plates in this style, to illustrate the most important phases of the anatomical lesions in camp fevers and camp diarrhœa."

We have been much interested in Dr. Woodward's investigations into the best means of making the results of his microscopical studies available for the information of medical men in America. He resolved to attempt the photographic reproduction of the microscopical preparations. With low powers, no serious obstacle was encountered in obtaining excellent photographs of properly selected preparations; but the higher powers offered difficulties, most of which, however, have been overcome.

"The plan employed in the photographic work, hitherto executed with high powers, is as follows: The direct rays of the sun reflected in a constant direction from the mirror of a Silbermann's heliostat (loaned for the purpose by the Coast Survey), are condensed by a large lens upon the plane mirror of the microscope, whence they are reflected through the achromatic condenser in the usual way. Before reaching the achromatic condenser, however, the rays pass through a cell containing a solution of the ammonia-sulphate of copper of sufficient density to absorb nearly all the rays except those at the violet end of the spectrum. The light used is, therefore, essentially monochromatic, and contains, with enough illumination for agreeable vision, the

greater part of the actinic force of the sun's rays. . . . . The eye-piece extremity of the microscope was thrust into one end of a long camera box, the connection made light-tight by means of a black silk hood, and, the image received on a piece of plate glass, observed by means of a focussing glass, while the focal adjustments were made. . . . . There is nothing peculiar in the chemicals employed."

On page 150 is presented a specimen of what has been accomplished in engraving the photographic representations of microscopic preparations. It consists of an engraving from a photograph of a perpendicular section of ulcerated color. The minutest details are accurately preserved in the engraving.

The report of Dr. Woodward concludes with an account of the materials available for a section in the Medical History of the War on hospital organization, construction and administration.

We gain in these reports a sufficient insight into the nature, extent and value of the materials which have accumulated in the Surgeon General's Bureau, to warrant us in forming very high expectations of the forthcoming medical history of the war. It is much to be desired that Congress will appropriate sufficient money to enable the officers entrusted with it, to execute the work in a manner commensurate with its value. From our knowledge of Dr. Woodward's attainments, industry and power of analysis, we have confident belief in his ability to do full justice to his portion of the work. He has already appeared as the author of a very meritorious work on Camp Diseases, and is well and favorably known in various departments of original research.

We have not thus far alluded to the typography and mechanical execution of these reports. The volume is printed by the enlightened and liberal house of J. B. Lippincott & Co., and in respect to paper, type, etc., is one of the most beautiful of the many beautiful works issued from their press.

In the next number we propose to make an analysis of the statistics, and some observations upon questions of pathology and morbid anatomy, discussed by Dr. Woodward.

ART. IV.—*Rupture of left segment of Semilunar valve of Aorta: Sudden death: Autopsy.*

A patient, aged 60, was admitted into St. John's Hospital, with an attack of "horrors." On the second day after his admission, whilst engaged in an animated discussion with a fellow patient, he suffered some severe cardiac symptoms, and died in a few hours.

The cause of death was readily explained in the condition of the heart. The whole organ was enlarged and its cavities dilated—the *passive dilatation* of Rokitansky, or, the *passive aneurism of the heart* of Corvisart. Its muscular tissue was in a state of advanced fatty degeneration, being of a fawn color, and readily torn. This condition of the muscular tissue was particu-

larly exhibited at the base of the left ventricle, at the point of origin of the aorta. Here the tissues were soft, breaking down readily into a pultaceous mass. The aorta was dilated, yellowish in color, and distensible. Upon laying open the aorta the left segment of the semilunar valve was seen to be completely detached from its point of attachment, except at the extremities of its free border. Through this opening the index finger could be passed into the ventricle.

Incompetence of the mitral and tricuspid valves also existed in consequence of the dilation of the cavities.

The liver was enlarged, its surface being somewhat nodulated—first stage of cirrhosis.

The other organs presented nothing worthy of remark.

The death in this case was clearly attributable to rupture of the valve, the heart being already seriously damaged. The fatty degeneration was in part due to age, but more especially, to the influence of a long course of spirit drinking.

ART. V.—*The History of Epidemic Cholera: Its Causes, Diagnosis, Pathology, Treatment, and the Sanitary Measures which may modify the severity of the Disease.* By W. B. FLETCHER, M.D., Indianapolis, Indiana.

PART I.

The materials of which this paper is composed have been drawn from various works and periodicals, both of the past and present day, but chiefly from lectures before the Faculty of Medicine, of Paris, by Ambrose Tardieu. Also from various papers from the German, Italian, Russian, and American, investigations translated and recorded in the Medico-Chirurgical Review, and beside, the works of Thomas Sydenham, relating to epidemics from 1675 to 1680, and John Huxham's Essays on Epidemic Fevers. And finally, many of the views have been drawn from that excellent work on the History of Epidemic and Pestilent Diseases, by Noah Webster, who has shown as much ability in medical as in etymological research.

Epidemic Cholera is a pestilential disease having its origin in the East Indies, from whence it has spread to all parts of the world. It is characterized by a peculiar gastro-intestinal flux, a special attraction of the blood, and a disordered state of innervation, of circulation and of hæmatosis.

The term cholera is no longer admitted to be of Greek origin. The Greek word found in the works of Hippocrates, and by some supposed to have described cholera, can have no other meaning than that of "a flow of bile," and the epidemic described by him and subsequent writers, is epidemic bilious diarrhœa. It is now the prevailing opinion that the word is composed of two Hebrew words—*Choli ra*—which in Latin is *morbus malus*, and agrees with the sense in many passages of Holy Writ.

The first proof of the antiquity of cholera is the mention made of it in the Sanscrit Manuscripts; and in Chinese writings frequent mention is made of epidemic cholera, but it is not so in the ancient Greek and Latin.

It is not until the 17th or 18th centuries that we find observations relative to epidemic cholera, and the greater part of the authors who refer to the disease confine themselves to descriptions of more ancient authors. The first writer who gives a distinct description of cholera was Willis, who names it "Dysenterica Aquosa Epidemica." This was in London, 1670. Sydenham's observations, made in 1669–76, are so perfect that no doubt can exist as to the disease having been the epidemic in question.

The distinctive characters of cholera are so strongly marked that a true case can hardly, by any possibility, be mistaken. One case is, in all its essential features, a copy of all cases.

The characteristic phenomena of true cholera are, more or less purging and vomiting of a peculiar fluid, cramps, sweating, suppression of urine, thirst, diminished circulation and impeded respiration, causing coldness of the tongue, surface and breath. The coldness of the breath is striking, and is constantly noticed. The lips are livid, and the skin looks bluish. There is also great mental depression after the period of invasion. When the disease becomes developed the symptoms succeed each other in regular order, which allows their description in two natural and distinct periods.

First Period.—The discharges increase in frequency; first serous or slightly bilious, afterward composed of matter which is liquid, whitish, granular, like a decoction of rice or oatmeal, sometimes like thickened milk, emiting an insipid spermatic odor. These evacuations are rarely wanting. A burning thirst, deep pain in the epigastrium, and prolonged hiccoughs, are ordinary accompaniments. Intensely painful cramps at the same time attack the calves of the legs, and sometimes the whole muscular system is in a state of rigidity; the limbs, fingers and toes are occasionally flexed and extended in spasmodic motion; the pulse becomes feeble and almost imperceptible; the features are altered; trembling and great agitation manifest themselves; coldness increases rapidly; the pulse is suppressed, and bluish spots appear upon the extremities. The skin assumes a blue or blackish hue; the nails become livid or black, the fingers wrinkled as though soaked in hot water. The volume of the body diminishes rapidly and perceptibly; the eye, sunken in the orbit, is dull and surrounded by a bluish circle; the complexion becomes faded, the respiration feeble, rare and anxious; the pulse seems reduced to mere oscillation. The secretions are arrested; the voice is lost; the nose is cold; the cornea flattened and puckered; spots of blood appear on the sclerotica; a viscid sweat covers the face and extremities; the intellect, which had remained unclouded, becomes obscure, and with embarrassed respiration, death follows in the midst of an apparent calm.

The first period is designated by various writers as the cold, livid, or asphyxia period. It may terminate fatally by the evacuations alone, before cyanosis or cramps make their appearance.

When the patient escapes the fatal termination the symptoms change their character and we have the

SECOND PERIOD.—A reaction which begins by a gradual return of warmth, a restoration of the pulse, and a gradual subsiding of all the symptoms of the first stage. The patient sometimes falls into a state of stupor, and presents some characteristic signs of the last stage of typhoid fever. Sometimes swelling of the parotid glands, various eruptions of the skin, as roseola, urticaria, erysipelas, etc., manifest themselves at the close.

The average duration of cholera is from one to four days, but it sometimes strikes like a thunderbolt, producing death in less than six hours. Convalescence is rarely rapid and free; great feebleness, anorexia, gastralgia, and gastro-intestinal derangements are apt to exist for a long time, but when the appetite returns the vital powers are promptly re-established.

Having thus hastily sketched the general form of the disease, let us now examine more minutely the symptoms. First, we have the precursory phenomena, to which it is necessary to pay great attention, because it is in the time of this foreshadowing of the disease that prompt action may arrest it. "If we approach an individual," says Dr. Coolidge, "who is beginning to come under the influences of epidemic cholera, we are struck with the languor under which he seems to sink. His pale countenance wears an expression of anxiety which is not, however, as it afterward becomes, that of pain; the features are sunken; there are pain and uneasiness in the stomach, a salty taste in the mouth; the eye becomes brighter, or resembles the eye of a person intoxicated; the matters evacuated are yellowish, become more and more fluid, and at last escape like water." It does occur that some patients are at the outset attacked without these precursory symptoms.

Diarrhœa. The diarrhœal discharges, becoming more frequent, at last escape by involuntary and almost continuous jet. This fluid, which is at first bilious, fœcal or sero-mucous, quickly assumes a peculiar and distinctive character which has already been referred to as "rice-water," milky, whey-like, or like the lees of wine, with a spermatic odor.

Vomiting. This symptom is almost as constant as the diarrhœa, and the peculiar fluids gush from the mouth like the waters from a pump.

Abdominal Pain. This occurs at first as a sort of epigastric anxiety or sensation of anguish throughout the whole abdomen, which is sometimes, though rarely, distended. There is a doughy sensation given to the hand on pressure, and distinct fluctuation.

Anorexia, Thirst, and state of the Tongue. There is a disgust for food, a burning and inextinguishable thirst; the throat and mouth are parched, the tongue large, pale, and moist, frequently clean and cold, but rarely dry.

Urinary Secretion. From the first there is a great diminution, and sometimes, later in the disease, actual suppression.

Cramps. Perhaps the most characteristic and painful symptom of cholera consists in the cramps, which are persistent, beginning at the feet and extending to the anus and the abdominal muscles. In some cases persons have

been known, during epidemic cholera, to have only this symptom of the disease.

Headache, and Derangement of Sense. The head affection is more frequently a dullness or heavy feeling, with ringing noises in the ears. The sight is almost always affected, the person seeing double, or objects appearing bluish or black and red, alternately. The touch and general sensibility are usually blunted.

Intellectual Faculties. The intellectual power almost always maintains its integrity although the power of expression is enfeebled.

State of Strength. The strength is rapidly exhausted by the powerful involuntary contractions which almost paralyze the limbs.

Voice. The voice becomes nearly extinct, and it is almost impossible to distinguish an articulate sound in the feeble efforts made by the patient; at times, however, the voice regains such strength as to enable the patient to make loud cries, but this is only through his great pain.

The Breath. The respiration seems not to be laborious on account of mechanical difficulty alone. J. Davy has found in a chemical analysis of expired air of cholera patients, only about one third the amount of carbonic acid which ordinarily exists. Another examination, made in France by Dr. Clanny, found no trace of carbonic acid, and numerous experiments instituted by the Academy of Medicine of France proved beyond a doubt that the air expired by those laboring under an attack of cholera, who do not present the extreme characters of asphyxia, contains nearly the same proportions of oxygen as the air expired by healthy individuals, and that air expired by persons in cholera who show signs of asphyxia contains more oxygen than when in health. This is undoubtedly significant of the existence of a like disorganized state of the process of sanguification in cholera.

Circulation is no less gravely affected. The character of the pulse we have already noted. Besides the alteration in the blood which will call our attention soon, it moves so sluggishly through its vessels that it will hardly flow from a vein or artery.

Temperature. We are not surprised then that the temperature should fall, and a coldness so characteristic should be the result. In touching the body the feeling is like that communicated by touching the skin of a reptile. The real difference of heat as compared with health is about thirty degrees.

The Features. The aspect of the face in cholera is so peculiar that all writers agree in their delineations of its characteristics. The face is very early painfully contracted, and numerous wrinkles furrow the brow. The cheeks become hollow, the lips thin and are pressed upon the teeth, the most sullen sadness is depicted on the features; the livid tint of the cold stage and the dark circled orbits, which are deep sunken, add to the ghastliness. At last the shining membrane of the eye grows dim; its surface wrinkles, sinks down, and becomes dry; the immovable lids leave the globe of the eye uncovered; the inflamed conjunctivæ become injected and covered with spots of blood which aid in giving to the countenance an aspect more terrible than death.

Secondary Affections. Having thus given as complete a description of epidemic cholera as space will permit, we will note the secondary effects, that is the sequences of the second stage, or reaction: and we find that a person, having first regained the warmth of the body, now continues in a languid, feverish state which is apt to follow the type of the prevailing fever of the season, either bilious, typhoid, or pneumonia. Recovery, however, is usually slow, even if no secondary disease follows.

Pathological Appearances.—The face presents the same ghastly look that is observed before death; the eyes like parchment, the lips compressed.

Muscular Contractility. The most noticeable feature is the muscular contractility which exists long after death, when both twitching of the muscles may be noticed, as well as contracting of a limb when it has been extended.

Digestive Organs. The digestive organs constantly present an appearance of shining adhesive exudations on the peritoneal surface; there is great vascular engorgement of the digestive mucous membranes, varying from a light pink to a dark reddish tint; this coloring is sometimes continuous and sometimes in patches. The greatest degree of injection is in the colon and rectum. Magendie found by injecting water into the intestinal arteries this coloring matter was washed through and the intestines became whiter, proving that the reddening was not the result of inflammation, but a stasis of the blood. Softening or thickening of the mucous membrane is of uncommon occurrence. Gangrene of the small intestines has been occasionally noticed; also the tip of the tongue, or other parts far from the center of circulation are sometimes gangrenous. The peculiar tuberculated appearances of the glands are found, as in all cases where a large amount of fluid has been secreted.

Liquid Contents. More or less fluid is found in the stomach and intestines, of a nauseous odor, and like a decoction of rice gruel in appearance. The mucous membrane is covered with a creamy or greyish matter which chemical analysis has shown to be analagous in composition to the serum of the blood. Bile of various colors is occasionally found. The lymphatics are unaltered.

Liver. The majority of observers have found little alteration in the liver, except a contraction of the biliary vessels.

The Blood. Perhaps no other pathological appearance is so marked as the great alteration in the blood, both as to quantity, which is so greatly diminished, and as to quality—a deficiency in some of its most important principles. By numerous and accurate observations one half the normal quantity is found to be absent. The blood corpuscles are a pasty mass, have lost their form and run together. More recent investigation shows that before death, and for a few hours after, the blood corpuscles present the normal appearance.—*Report of Committee for Scientific Inquiry in Relation to Epidemic Cholera*, London, p. 301. The fibrin and albumen have largely disappeared.

Heart. From the change in the blood, the heart and vessels are found flabby and relaxed, the left cavities almost always empty, the right cavities distended with black clots; the aorta contains stringy, fibrous shreds.

Respiratory Organs. On the pleura, in patches or covering the whole membrane, as in all the lower membranes, we find in cholera a deposit of glutinous masses. The lungs are often healthy unless from secondary causes.

Nervous Centers. The nervous substance, whether in brain or spinal marrow, which is found healthy, appears to be sensibly increased in consistence and volume; general congestion and sanguineous turgescence is also present. This is the observation of the majority of pathologists, while others affirm that they have found changes sufficient to account for the disease.

The Kidneys and Urinary organs have nothing peculiar to the disease.

Microscopic Examinations. Up to this date, so far as I can learn, no very accurate microscopic examinations have been made. Dr. Ludvic Bœhm, of Berlin, in 1849, published a paper on the "Microscopical Appearance of the Mucous Membrane of the Stomach and Bowels in Cholera." He says: "the whitish flocculi along the membranes consist of cast-off epithelium, in fact there is a general desquamation of epithelium through the mucous surface The blood corpuscles are found altered in form."

Vegetation like the *saccharo-myris cerevisiæ* were found, and supposed to have some connection with the disease, but upon examining back numbers of the Transactions of the Microscopical Society of London, I find that Drs. Budd, Britton, Swayne and Lancaster, who read papers upon the vegetable origin of cholera at various times, had produced figures of the algæ which they had discovered; but it appears that no two have met with the same vegetation, although all of them found the more common forms of vegetable parasites; and while we would not controvert the theories of a vegetable organism as being the cause of epidemic cholera, we must yet feel that it remains to be demonstrated, and that these vegetations, instead of producing the disorganization of the fluids, are produced by them.

Microscopical observations of the rice-water discharges of cholera, the blood, the urine, the epidermis, the clothes of cholera patients, as well as the water drank and air respired have been made.

The one great result of these investigations shows that neither in the blood, nor urine, nor on the skin, nor clothes, nor in the water drank, nor in the air respired, are any organic productions, neither animalculæ nor fungi present to which the origin or propagation of cholera could be attributed.

The only fluid examined which was found uniformly to contain living organic productions, was the rice-water discharge, which even while inclosed in the smaller intestines swarmed with vibriones. The presence of these vibriones exhibits at least a remarkable proneness of the small intestines to undergo rapid decomposition.

From *Report of Committee for Scientific Inquiry in Relation to Epidemic Cholera:* "As far as chemical evidence can throw any light on the subject, there seems to be no reason to suppose that any substance or organized matter exists in the rice-water discharges capable of communicating the disease from one individual to another, or one animal to another."

In summing up, it is easy to see the bond which unites these numerous and diverse lesions, and connects certain phenomena observed during life. The

great change which the blood undergoes in its composition; the diminution of the serum and the quantity of salts, rendering more difficult the oxygenation and circulation of the blood, explains the tendency to asphyxia, and the sanguineous stagnation which is met with in the tissues and organs, especially in the nervous system.

To this state of the blood should also be added the alterations of the intestinal mucous membrane, which, besides this immoderate and entirely peculiar secretion, which is so closely connected with the changes in the composition of the blood, presents also, extensive congestion and an abnormal development of mucous-follicles and villosities of the digestive tube.

Part second will appear in our next number, and will contain a lithographed map, showing the geographical distribution of cholera.

MISCELLANY.

Proceedings of the Cincinnati Academy of Medicine.

Dr. McIlvaine, *Pres't.* Dr. McReynolds, *Sec'y.*

Since our last report, the discussion on Cholera has continued. The society has been occupied mainly with the pathology and treatment. Papers have been read by Drs. Carroll, Almy and John Davis. The paper of Dr. Carroll we did not hear, and hence can give no outline of its contents. Dr. Almy's paper was specially intended to give his own experience in the use of calomel in cholera. His mode of administering it, was as follows: Two grains placed upon the tongue after every discharge, whether by vomiting or by stool. His success by this method, he considered equal to that of any other employed in the epidemics of Cincinnati. Dr. John Davis confined himself to the pathology of cholera, reserving the subject of treatment to a future occasion. Dr. Davis' pathological views are colored somewhat by his theory of contagion, but of their general correctness, no doubt can be entertained. His paper was an excellent resume of the knowledge on this subject.

Dr. Williams, proposed a theory of the mode of action of the cholera poison. In his view the poison makes its chief impression on the organic nervous system, which presides over the functions of secretion and circulation. To cure cholera, he advocated subcutaneous injections of atropine, strychnia and other agents of like character, or injection of the same agents directly into the veins. Our readers will perceive that in his pathology, as in his practice, Dr. Williams has been anticipated.

Dr. Fries, in the course of the discussion, gave us some excellent practical suggestions as to the management of the patient in an attack of cholera. He

insisted upon absolute rest and quiet, and the maintenance of the recumbent position.

Dr. Thornton agreed with those who maintained the portability of the cholera poison, and its propagation by persons and clothing, and through contaminated water supply.

The Academy has thus far been merely skirmishing on the outskirts of the treatment, and may not be expected for several weeks yet, to attack the main position. The discussion, although protracted, has been very useful. The spirit for thorough investigation, and the love of truth, which have been displayed, are especially commendable. Some of the members have been disposed to declaim against this patient examination and inquiry into the causes and pathology of cholera, and have called for something practical, as if all of real progress in medical science was not accomplished by the same method. Since our report closed, a lengthy paper on the pathology of cholera has been read by Dr. J. F. White.

The Pleasures of the Medical Profession.

We make the following eloquent extract from an address delivered upon the opening of the Leed's School of Medicine, by JAMES PAGET, a name made familiar to medical men every where, by his admirable lectures on Surgical Pathology:

"And now let me wish you all the happiness in your profession that I have tried to point out. And let me try to tell you in what that happiness will be found. It is not likely to be found in great wealth, or in luxury, or perfect ease of life; nor yet in high political or social station; for these things are so rarely attained in our profession, that it would be dishonest to hold out these as probable rewards of any amount of work you can do; but the opportunities of happiness which our profession offers are these: competence of living, the society of educated men, blessings from the poor, recompense with gratitude from the sick, boundless fields of intellectual exercise, access to the richest stores of knowledge to the glory of the Creator, the relief of man's estate and daily inducements to the exercise of the highest christian virtues. I could wish you no greater happiness than the loving and peaceful homes you will find in these things. Let me wish them to you all. The pleasures of intellectual pursuits, I know, can hardly be attained by many of us, while the practical business of life must be laboriously pursued by night and day, almost alone, under circumstances most discouraging; but the pleasures of virtue are within the reach of us all. And herein is, indeed, the unmatched excellence of our profession, that in its daily duties it offers to us the opportunities of the highest christian virtues. Not one of us need go out of our daily path to find these occasions about him. Without preaching, he may teach lessons of highest wisdom. Without wealth, he may be a great alms-giver. Daily he may say, with all reverence, "silver and gold have I none, but such as I have, give I thee," and what he has to give may be more than the acceptance from him of silver and gold might purchase. Thus he may live every season of his life, promoting his growth in virtue, and when he

dies his last memories may be memories of duty done—the surest way to honor among men, and through God merciful, the surest way to Heaven."

The Montgomery County (Ohio) Medical Society held its first annual meeting, since the war, on the 4th of January. The following are the officers elect for the current year:

President, Dr. Richard Gundry; *Vice-President*, Dr. John Davis; *Secretary*, Dr. H. K. Steele; *Treasurer*, Dr. J. Clements; *Censors*, Dr. W. Lamme, Centreville, Dr. J. D. Kemp, Vandalia, Dr. J. C. Reeve, Dayton.

In view of the possible advent of cholera during the coming season, a committee was appointed to report at the next meeting upon the sanitary condition of each ward of the city of Dayton.

Sir William Fergusson, Bart.

The public, as well as the profession, will, we feel assured, learn with satisfaction that her majesty has been pleased to notify her intention of raising Mr. Ferguson to the honors of the baronetage. That distinguished surgeon received on Friday, the 22d inst., a letter from Earl Russell, informing him of the Queen's gracious intention, and stating that the honor was conferred on account of his "distinguished merit and eminence as a surgeon." This, in our opinion, and we believe in that of the worthy baronet himself, constitutes a considerable portion of the honors done him, since it shows a recognition on the part of the highest in the realm of his exalted position among the surgeons of Europe. Sir William Ferguson has, it is true, been attached to the court for many years, both as surgeon to the late Prince Consort and as surgeon extraordinary to the Queen; but he has never been in personal attendance upon her majesty (she fortunately not having required surgical aid) and thus can have no immediate claim upon her regard, such as two of our physician-baronets—Sir James Clark and Sir Charles Locock—have. We are happy to regard the dignity thus conferred as a special compliment to great ability and high general character in strictly professional paths. In his autobiography, and speaking of his own baronetcy, Sir Benjamin Brodie says, "an hereditary rank, however small, without some independent fortune, is really an incumbrance;" and we are, therefore, glad to be able to state, that Sir William Ferguson is not unprovided in this respect. He is also blessed with both son and grandson, in whom his title will survive him, though, as many of our readers are aware, the partner of all his early troubles and later successes, has unfortunately not survived to witness the attainment of his well-earned honor. It is thirty-one years since the last baronetcy was conferred on a London surgeon—Sir Benjamin Brodie, who had then been serjeant-surgeon to the King for two years. He was a colleague of Sir Astley Cooper, and had succeeded Sir Everard Home in 1832; and thus for many years, with this small interval, both serjeant-surgeons were baronets. Since Sir Astley Cooper's death, Sir Benjamin Brodie was the only surgical representative of this order, if we except Sir Stephen Hammick, who is now the

oldest baronet living, but who never took a leading position in London, and after Sir Benjamin's death, surgery remained in invidious comparison with medicine as regards hereditary rank. It is to be desired that a similar compliment should be paid to other living and highly distinguished representatives of our profession.—*London Lancet, Dec.* 30.

Another Medical Baronet.

Her Majesty has been pleased to bestow another honor on the profession of Medicine, by conferring a Baronetcy on James Young Simpson, M.D., of Edinburgh. The conferring of this distinction must give, we think, universal satisfaction. Sir James has long been foremost in his department of practice, and his name is associated with the discovery of that invaluable boon to suffering humanity—chloroform. This alone would entitle him to the honor he has received. Sir J. Y. Simpson is distinguished as an obstetric practitioner, as a physiologist, as an operator, and as a pathologist of great research and originality. His reputation is European, and the honor is fully deserved.—*London Lancet*, Jan. 13.

The death of Sir Astley Paston Cooper, Bart, is announced. He was the nephew and successor in the baronetcy of the late eminent surgeon.—*Ibid.*

Circular No. 6, War Department.

Surgeon General's Office, Washington, Nov. 1, 1865.

We have just received this important document which contains "Reports on the Extent and Nature of the Material available for the Preparation of a Medical and Surgical history of the Rebellion." It has been neatly printed for the Surgeon General's office by Lippincott & Co. of Philadelphia. We quote the following as giving some idea of the documentary data in the possession of the Department:

"The extent of these materials is simply enormous. The returns are of as huge proportions as the armies that have been engaged in active operations for the last four years. The great body of the medical officers have made the reports required of them with commendable diligence and promptitude, and their zeal is the more deserving of praise when the engrossing nature of their field duties is considered. The result has been the accumulation of a mass of facts and observations in military surgery of unprecedented magnitude. It is yet impracticable to determine with accuracy the number of wounds received in action during the late war, though data for a near approximative estimate are accessible. But a comparison of a portion of the returns with the complete statistics of other armies will sufficiently indicate the vast numbers that are dealt with. In the British army in the Crimea during the entire war, there were 12,094 wounded, and 2,755 killed, or a total of 14,849.

In the French army in the Crimea, of a total effective force of 309,268, according to the report recently made by M. Chenn, there were 39,868 wounded and 8,250 killed, or a total of 48,118, although in his report of injuries of dif-

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ferent regions, M. Chenn reports but 26,681 cases. In the late war the monthly reports from a little more than half the regiments in the field give, for the year ending June 30th, 1862, an aggregate of 17,496 gun-shot wounds. The reports from rather more than three-fourths of the regiments for the year ending June 30th, 1863, give a total of 55,974 gun-shot wounds. The battle-field lists of wounded for the years '64–65, include over 114,000 names. But these returns are to be completed by collating with them the reports of general hospitals, where many wounded were recieved whose names the recorders of field hospitals, or regimental medical officers, failed to obtain, and by adding the names of those killed in battle. In comparing the number of cases of some important injury, as, for example, fractures of the femur, it is found that in the French Crimean army there were 459 such injuries, and in the English army 194, while over 5000 such cases have been reported to this office. Or if one of the major operations is selected for comparison, as excision of the head of the humerus, Crimean returns give 16 of these excisions in the British, and 38 in the French, but the registers of this office contain the detailed histories of 575 such operations. The surgical specimens of the Army Medical Museum number 5480; and not only specimens of recent injuries, but in illustrations of reparative processes after injury, of morbid processes, of the results of operations, and of surgical apparatus and appliances, this institution is richer, numerically, at least, than the Medico-Military Museums of France and Great Britain.

Gunshot Injuries of the Head. The number of these reported to the office is 5046. The number of perforating, and penetrating and depressed fractures is 1104. Of 604, in which the results have been ascertained, 505 died, and 199 recovered. Of 107 in which trephining was performed, 60 died, and 47 recovered. In 114 where fragments were elevated, or removed by forceps, 61 died and 53 recovered. But, as is stated, this favorable exhibit will be materially modified when a larger number of results are ascertained, as it is probable that a great proportion of the field operations of trephining, in which the results are stated to be undetermined, were lost sight of, and terminated fatally.

Twenty-five figures illustrate the remarks of the compiler on gunshot injuries of the head, snd after reporting several cases of interest, he observes: "In looking over the registers of gunshot injuries of the head, two general facts are noticed: First, that in the after-treatment of scalp-wounds, a multitude of surgeons did not consider spare diet, perfect rest, and antiphlogistic measures as of essential importance; and, secondly, that in the treatment of cranial fractures, the general tendency was to the practice recommended by Guthrie in regard to operative procedures, rather than the more expectant plan insisted upon by the majority of modern European writers on military surgery." In another place he states, that in 483 cases treated by expectancy, the ratio of recovery is only 20·5 per cent. But, it is added, the latter group of cases includes nearly all of the penetrating and perforating fractures, and that, therefore, it would be unwise to base on these figures an argument in favor of operative interference.

Gunshot Wounds of the Chest. Of 7062 there were 2303 that either penetrated the thoracic cavity or were accompanied by lesions of the thoracic viscera. Of 1272 in which the results were ascertained, 930, or 73 per cent. were fatal. It is stated that in the treatment of penetrating wounds of the chest, venesection appears to have been abandoned altogether. Hemorrhage was treated by the application of cold, perfect rest, and the administration of opium. As no instances are reported of paracentesis or enlargement of wounds, it is believed that the above measures were generally successful. Splintered portions of fractured ribs were removed, and the sharp edges threatening to wound the pleura or lung, were rounded off. After this, but little was done by the surgeon, except to extract foreign bodies whenever practicable, and performing paracentesis when empyema was developed. "The records of the results of the so-called method of 'hermetically sealing' gunshot penetrating wounds of the chest, are sufficiently ample to warrant an unqualified condemnation of the practice. The histories of the cases in which this plan was adopted, have been traced, in most instances, to their rapidly fatal conclusion." But one solitary exception is made to the above condemnation of the practice so highly lauded by our friend Dr. Howard, in his lecture delivered by invitation, some two years since, in the Medical College of Ohio. As Dr. Howard's method excited so much interest at the time, as to lead the then Surgeon General to place him in charge of a hospital for gunshot wounds of the chest exclusively, we feel regret that none of his statistics have been published in Circular No. 6.

Abdomen. Of 2707, 2164 were flesh wounds, and in 543 the cavity was penetrated, or viscera injured. Of 414 in which results were ascertained, 308 or 74 per cent. were fatal, showing an unexpectedly large number of recoveries. G. C. B.

New Medical Journals.

The medical publishers, Wm. Wood & Co. N. Y., have issued a circular in which they announce that they will begin on March 1, 1866, the publication of a first class medical journal, to be issued on the 1st and 15th of each month. The editorial management has been confided to Dr. Geo. F. Shrady.

We learn also that Dr. Bennett Dowler is about to revive the *New Orleans Medical and Surgical Journal.*

The *Chicago Medical Journal* has changed hands and is much improved.

Under the head of *Miscellany* in our last number was published a synopsis of the life of Dr. Valentine Mott, taken from the London Lancet. It contains several errors in relation to surgical statistics, as for example, in alluding to the removal of the clavicle. Instead of the three cases mentioned in which the operation was performed by Mott, Travers and Warren, we have that of McLeary of Ky., in 1813, preceding that of Mott in 1828, instead of 1827 (as stated by the writer in the London Lancet), Wedderburn of New Orleans, Fuqua of Va., Curtis of Chicago, and Gunn of Detroit. Beside these, we have had two cases of the entire removal of the clavicle. One of

these in which we operated some nine or ten years since, resides at present in this city, and has an excellent use of his arm. The other patient had osteo-sarcoma, and recovered well from the operation, but died some months afterward from disease of nearly the whole osseous system.

To the above might be added the cases of removal of the entire clavicle and scapula performed twice by Dr. Reuben D. Mussey, now of Boston McClellan of Philadelphia, Langenbeck of Berlin, and Busch of Bonn. We need no further proof to show that the writer of Dr. Mott's biography had devoted but little attention to the statistics of this operation. G. C. B

Amputation at the Hip Joint.

In the statistics of this operation published in Circular No. 6, published by the Surgeon General, it is stated on the authority of Dr. Brinton that Dr. Blackman's patient, after the battle of Shiloh, died in twenty minutes. In that case the operation was performed between Paducah and Louisville. The patient lived to reach Cincinnati. Nearly half a day elapsed before the wounded were removed from the steamer to St. John's hospital, and Archbishop Purcell had a conversation with the patient some 24 or 48 hours after his admission to the hospital. He lived about one week after the operation. It is to be hoped that the other cases embraced in these statistics have been more accurately reported. In connection with this subject we may state that a month ago we had our second amputation at the hip joint for a gunshot fracture of the femur, and the patient has steadily improved in health since the operation. The entire bone was involved in osteo-myeletis. This case, with that which we performed in 1855 for osteo-cephaloma, in which the patient survived 18 months, gives us two cases of success out of three amputations at the hip joint. G. C. B.

Injection of Animals with Fluids from Cholera Patients; Death with Cholera Symptoms. Efficacy of Subcutaneous Injections in the Treatment of the Vomiting of Cholera.

At the meeting of the *Societe Medicale des Hopitaux*, at Paris, held November 22d, M. Herard reported the case of a young girl affected with cholerine for two weeks, who continued to vomit daily about two quarts of a liquid transparent as water and but slightly differing from that fluid in composition. Of this liquid M. Robin injected a quantity into the trachea of healthy dogs, producing vomiting, liquid evacuations and chills—in short, symptoms strictly analogous to those of cholera, and terminating in the more or less speedy death of the animals. The same result followed injection with the liquid portion of the blood drawn from cholera patients during the period of reaction. Injected into the stomach, these symptoms did not follow, a circumstance probably due, according to M. Robin, to the fact that the liquids were digested, and thus lost their toxic properties. In one case, however, a dog which had by chance devoured a large quantity of the alvine dejections of a cholera patient, died with all the symptoms mentioned above. In this case it

was supposed that the stomach was unable to digest the whole of the morbid excretion, and the remainder was absorbed with all its deleterious properties, as in the case of injections into the trachea.

M. Buequoy stated that M. Bourdon had often stopped, by means of subcutaneous injections of morphia, the vomiting of cholera patients, after it had resisted all other methods which had been tried.

At the meeting of the Imperial Academy of Medicine, held on the 2d ult., M. Guerin presented a note from M. Pelican, the Director General of the public health in Russia, in which he remarked that Russian physicians, who were all anti-contagionists in 1831, are now completely converted to the doctrine of the contagiousness of cholera.

At the last accounts the cholera was raging at Martinique, and two cases had arrived at Havana on board a steamer from Europe; the authorities placed her in quarantine.

The deaths from cholera in Paris during the present epidemic had reached the number of 6,337 on the 22d of December last.—*Boston Medical and Surgical Journal, Feb. 1st.*

Col. McDermott, *late Surgeon U. S. Vols.*—We have been much pleased to observe the appointment, by Gov. Cox, of this able and experienced officer to the position of Surgeon General of Ohio. His distinguished services in various important capacities during the late war have fairly entitled him to this distinction.

With the present issue we shall cease to send the Journal to any but paid up subscribers. Gentlemen who desire to have the Journal continued will please remit without delay. The exceedingly low price at which it is furnished will not permit any other course. With regard to the future numbers, we can only refer to the present as an earnest of our design. We desire to be judged by our motto—*Arbor cognoscitur fructu.*

We learn from the *Phil. Med. and Surg. Reporter* that Dr. H. Coolidge, Surgeon U. S. A., died at Raleigh, N. C. on Jan. 23d. Dr. C. was a gentleman of great abilities, and had a wide circle of friends both in and out of the profession.

Books and Journals Received.

Bedford's Obstetrics, from the Publishers.
Winslow on the Brain and Mind, from R. W. Carroll & Co., Cin.
West on Diseases of Chileren, from R. W. Carroll & Co., Cin.
American Journal of the Medical Sciences, Jan. 1866.
The Chicago Medical Examiner, Jan. 1866
The Richmond Medical Journal, Jan. 1866.
The Buffalo Medical Journal, Jan. 1866.
Transactions of the Illinois State Medical Society for 1865.
The Boston Medical and Surgical Journal, Jan. 1866.
The Dental Register, Cincinnati, Jan. 1866.
The Chicago Medical Journal, Jan. 1866.

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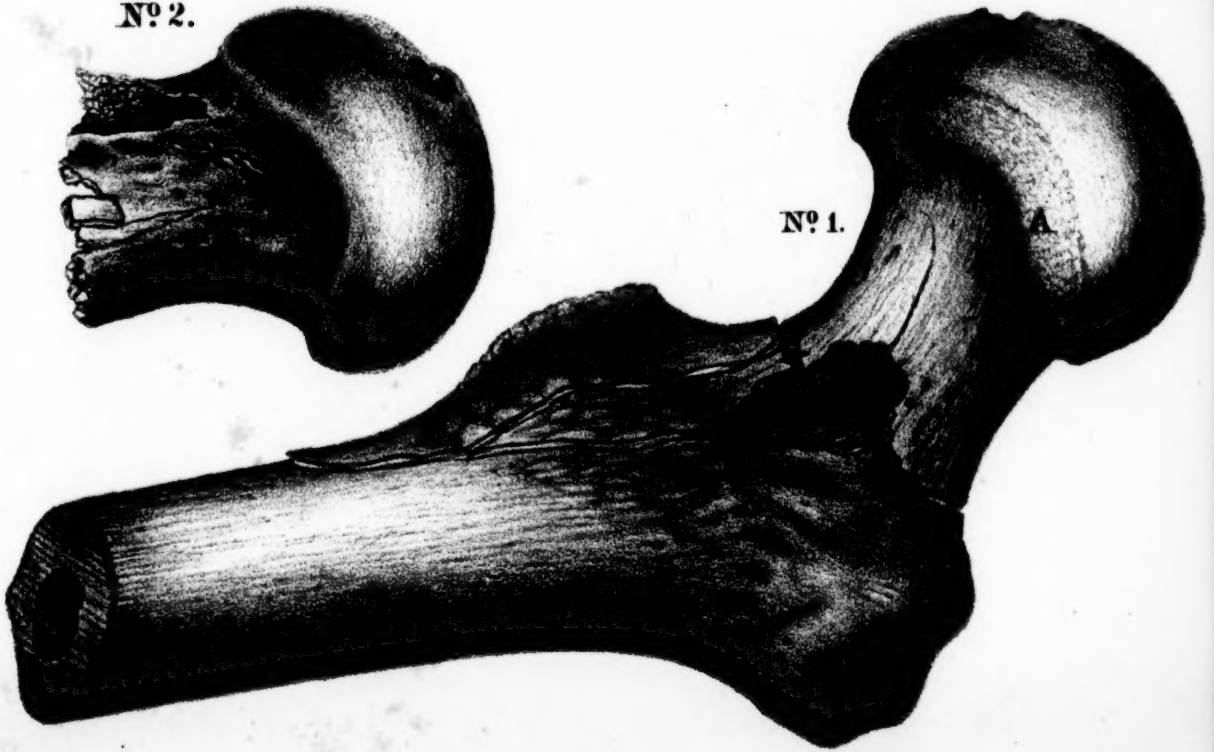
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